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6. Leconte's Sparrow, Young

(one-half natural size)

Bird-Lore

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The Taming of a Great White Heron

By NORMAN McCLINTOCK

With a photograph by the author

SEVERAL winters ago, I was sailing amongst the Florida Keys, south of Miami, and one day landed on a small island, where lived some fishermen. While wandering about the island, I spied, at a distance, a beautiful specimen of the Great White Heron (*Ardea occidentalis*). The bird, which looked as if it had been carved out of marble, was silhouetted against the sea, but I so maneuvered as to bring the foliage of a mangrove tree as a background for the bird's snow-white plumage. I then stalked the bird and, realizing the shyness of the species, I began to take pictures at a very respectful distance.

When the first drop of my focal-plane shutter did not put the bird to flight, I moved a few steps nearer and made another exposure. This operation I repeated some six or eight times, until I got within about twenty feet of the Heron, when it took flight.

My surprise at this success was great, but it was later explained by the fishermen, who, I found, had made a pet of the bird. They told me they had caught it when very young upon another Key, and that, by systematically feeding it, they were able soon to give it its freedom, without the Heron showing any desire to leave their fishing station, where it voluntarily remained throughout the year.

The extent of the taming of this beautiful Heron was such that had I been one of the familiar fishermen, with a fish in my hand instead of a camera, I probably could have handed the fish to the bird.

Now I venture the assertion that there are today few American birds that will be found as wild and as shy as the Great White Heron. Hunted by man, almost to the point of extermination, the majority of the remaining individuals of this species have been driven to the most inaccessible localities.

It accordingly seems to me that the accompanying photograph of this rare and beautiful bird, which I took upon the occasion mentioned, offers a striking illustration of what can be expected from the continued kind treatment of any of our wild creatures.

GREAT WHITE HERON
Photographed by Norman McClintock

Breeding of the American Crossbill

By P. B. PEABODY

With Photographs by the Author

DATA for the breeding of the Crossbills of North America are so diffusively shelved in the great libraries of our country, and the statements of "lumber-jacks"[1] (thus called in the West), as given in a late number of BIRD-LORE, are so inadequate and so misleading, that the writer has thought it no impertinence to give the readers of BIRD-LORE the summary of notes that have been a-gathering during the past five years. In the West we see the Crossbill (*Loxia curvirostra stricklandi*) only in July and August. It comes down from the regions of the conifers, at that time, accompanied by its recently fledged young, to fatten on the seeds of sunflowers and other like plants. (It is, of course, the varying and local character of the most of the conifers that makes all Crossbills prone to wander.) From the (manuscript) pages of my 'Nesting Ways of North American Birds' I collate the following facts: Five (manuscript) instances of breeding furnished by courtesy of the National Museum, and data from Labrador, Maine, New York, and Colorado, give us, together, an aggregate breeding range of *eight months*.

What is probably a typical nest of the American Crossbill is described by Mr. Bicknell. The locality was, Riverdale, a suburb of New York City. The nest was placed eighteen feet from the ground in a scantily branched cedar. The nest-mass was inwrought with a number of the cedar twigs. Bits of spruce made up the nest foundation. The next layer was of cedar bark; the third, which was loosely fitted in, was of various finer materials. The lining was of horsehair, grass, rootlets, bits of string, and a few feathers. The site of the nesting was in plain view from passing roadways. "On the whole, the nest was rather shallow." Let us compare an account of British nesting, by Charles Dixon:

"The Crossbill nests in firs or other evergreens. A number of twigs are loosely laid together; these, with grasses and rootlets, forming the outside of the nest. All this is warmly lined with wool, fur, hairs and feathers" (Birds' Nests).

The American Crossbill is especially abundant in Nova Scotia; as one might expect, R. W. and Harold Tufts found over nine nests, during one season, on one small area. A letter from Robie Tufts describes average nests as usually well-concealed, above. They were always, he stated, in large trees, and saddled on a horizontal limb. The nest-materials were as follows: Usnea, twigs, decayed wood, lichens, moss and plant-down. The linings were of dead grass, usnea, moss, and sometimes feathers. Some nests were beautifully made, while others were

[1] Most obviously, by light of the best nest-descriptions herein given, and of the studies which many of us have made, in years gone by, the large globular nests of moss, with entrances at the side,—described by Mrs. Wright (See BIRD-LORE, November, 1908),—are not imputable to *Loxia*, the servile imitator-in-nest-making of the Piñon Jays, but to the Red Squirrel. (This, beyond the merest shadow of a doubt.) I cannot lay my hands on the note-book containing the list of the contents of the nest (taken, in place, with the one remaining birdling), which is shown in the accompanying illustration. Thus much, however, I can safely say, from memory: The nest was largely made of cedar and pine twigs, inwrought with fine cedar bark and weathered plant-strippings. And it was marvelously like a miniature of the typical nest of the Piñon Jay,—about three-fifths, I should say, of the size of the (normal) latter.

"shapeless masses." All the nests observed held fresh eggs between January 22 and March 17. (An account of these nestings will be found in 'The Auk,' 1906, p. 339.)

The writer spent many delightful hours, at all seasons of the year, making as intimate studies as possible of the ways of the Crossbill (*Loxia curvirostra stricklandi*) of Crook and Weston counties, Wyoming. Readers of Bird-Lore who may care to go over, from a comparatively technical point-of-view, a partial outlining of these studies will find them in 'The Auk,' for 1907, p. 271. A few of the broader outlines of my study may here be briefly given.

I found the Wyoming race of Crossbills exceedingly erratic and irregular. In the matter of breeding, they appear—if that were possible—to be *particularly* erratic. To state the case in its probable extreme: I have studied fledgling Crossbills, on the shale hills of Newcastle, Weston county, Wyoming, that were probably hatched from eggs laid in November; and I have seen them feeding callow young in July!

In the very midst of the railway town of Newcastle, one still, extremely cold morning (February 2), with a thermometer-registration of minus thirteen, I stood, at eight o'clock, beneath a lone bull-pine sapling. Crossbills were cricketing their crispy chirps overhead. Being quite used to this, I paid little heed, but simply said: "Guess it must be nearly Crossbill nesting-time; that old male seems to be feeding his mate." Ten days later, at the same hour, I stood at my street-corner near the same spot, beneath a very small bull-pine sapling. (It was but eight feet tall, at its very spire.) From amid its branches I heard a clamorous, rather mellow, *Pee-tiv, pee-tiv-tiv*, iterated by several birds. Glancing up, I saw, to my dumb astonishment, a mother Crossbill alternately feeding three young that were quite as large as herself. Bits of down still adhering to the feathers of the backs of their crowns bespoke their juvenility, while the straightness of their beak-commissures was most decidedly "diagnostic."

There the trio perched, but four feet above my head. The mother, with generic nonchalance, gave me no heed whatever.[1] The bull-pine seeds which the female Crossbill would alternately extract and dole out, by turns, to her progeny, were not pre-digested. Yet they were, quite as manifestly, macerated. (And later studies convinced me that this feature of feeding was uniform, at almost all stages of the growth of the young Crossbills.)

During the weeks that followed, I repeatedly heard a note of mature Crossbills, previously unheard. It was an apparently excited, "*Trip-trip-trip*," resembling marvelously some intonations of that cheery, monotonal, "kip," with which the Arctic Three-toed Woodpecker beguiles his wintry toils. The "trip" note of the Crossbills became inseparably (and seemingly with exclusiveness) connected with nuptial excitation; and with probable parental apprehension. Indeed, I long expected the hearing of this note to become, for me, the harbinger

[1] Robie W. Tufts once wrote me of touching, and even actually stroking, the back of a female White-winged Crossbill, who was feeding her young.

of that entrancing study of nesting habit, with the Crossbills, which became for me, during those brief Wyoming years, quite little short of a veritable passion; but the expected never would happen!

And yet the unexpected *did, thus*: On the crest of a cañon-margin, at dusk of a heavenly evening, the 17th of April, I followed, crazily, in the wake of a continual disappearing of that rarest of Wyoming birds-of-transience-and-passage, the Montana Junco. Throwing down, at last, all impedimenta—camera, hand-bag, field-glass and all,—I ran, finally, down into a maze of cedars, into which my bird had disappeared, for the night. Resting a moment, I heard behind me, a soft, hushing, whir of little wings. Then a hysterical "*Chill-chill-chill*" cut into the still air. My delight was boundless when I recognized, as the source of

SHOWING SITE OF CROSSBILL'S NEST IN TOP OF LEFT-HAND TWIN-TREE

that unfamiliar sound, a female Crossbill. Hastening away and back for my field-glass, I found, on my return, that the Crossbill had disappeared. Search,—intent, exhaustive, painful, revealed nothing.

I turned homeward. A dozen steps in advance, my sight turned skyward. A slight nest loomed small in a little pine beside me, climbers were beaten against the trunk; and instantly, "with many a flirt and flutter," with many a "*Chill-chill-chill*," a Crossbill left that nest. Then, as I neared the nest level, climbing like any eager ten-year-old, the coward flew away. There were two tender young in that scoop of a twiggy, bark-lined nest.

On April 20, three days later, I visited the spot. One young was gone. The mother again played the coward. The accompanying *in situ* photograph of the one remaining young was taken from the sister tree. On April 23, the nest was empty. I thereupon vowed eternal hatred to all Piñon Jays. It was their work, I am sure.

NEST AND ONE YOUNG OF CROSSBILL

No other nest was found. All the early-summer through, that imperious and insistent "*Pee-tiv, pee-tiv, pee-tiv-tiv-tiv*" might be heard among the shale hills of Weston county, or on the venerable slopes of the Bear Lodge, full sixty miles away. More remarkable still, parent Crossbills were more than once observed feeding juveniles that were, unquestionably, at least three months old, with beaks yet not fully developed. A delicious bit of a drizzly-day story must end this little sketch: Atop the Bear Lodge Hills, in Crook county, Wyoming, one June day, I followed a manifestly fidgety Western Tanager on a most provokingly futile bit of a wild-goose chase. This ended, as such quest often does, by the connubial bird depositing her nesting material at no end of a distance from the one sacred spot where it really belongs. And the rain, it rained! But then followed a piece of the rarest good luck. A female Crossbill was gathering shreds of cedar bark. She flitted, oblivious of the black slicker below her, to the mid-branches of a small bull-pine. And there, quite near the trunk, was the rudiment of a nest.

The material was lightly spread, and then she sat upon it. But, when I looked for her to go away again, in a few moments, after more bark, she went not. Then I trained the field-glass upon her, and waited for an explanation. It came soon. Beneath her, as she now and then arose, gingerly, upon her toes, there sat, I saw, a most bedraggled juvenile,—soaked through, yet apparently cheerful, withal. And who would *not* be, if *his* mother, finding the weaving of a fiber blanket upon somebody's deserted bed futile to fend the rain, should straightway make a blanket of her own clothing?

An Albino Robin Tragedy

By R. W. HEGNER

With photographs by the author

EVERY year of a bird student's life contains some one incident of special importance which stands out prominently among the events that go to make up the history of his field work. Perhaps it is the discovery of a bird new to the locality; perhaps it is the discovery of a long-sought-for nest. Whatever it may be, it adds to the zest of the student's studies, gives energy to his researches and fills him with new enthusiasm.

The one event in the year 1901 that will remain longest in my memory is the coming of an albino Robin. It came with hosts of other Robins in the middle of March, and, happily, was one of those that stayed to make their homes with us in the northeastern part of Iowa.

When first seen, it was busily engaged on the lawn, extracting a long earthworm which was reluctant to leave its earthy home. Vigorous snappy jerks soon dislodged the victim. A taste for more of the same kind of food was evidently left in the Robin's mouth, for this lawn after that became its favorite feeding-ground. Each visit gave me an opportunity to grow better acquainted with the white Robin's appearance. It was afflicted with partial albinism. Half of its large wing-feathers were white, and on its head were dots, streaks and blotches of white in place of the usual dark color. The local newspaper called it a freak, but to me it was a most interesting bird whose domestic life I expected to study during the coming spring and summer.

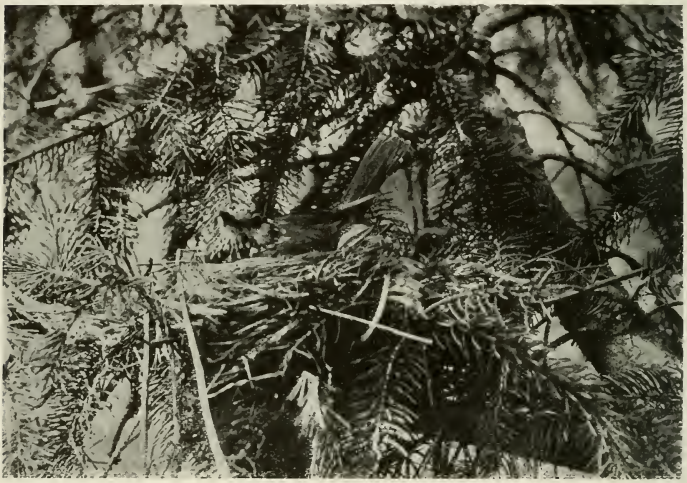
The joy at discovering this rare bird was increased a few days later when it was seen flying into an evergreen tree just across the road with nesting material in its bill. This tree was not visited for a week for fear of disturbing the nest-building which was evidently going on there. April 23, an examination of the tree brought with it another cause for rejoicing—the Albino proved to be a female and was already incubating three pale blue eggs.

Several days were allowed to pass until the mother bird had become somewhat accustomed to her home duties. Then a camera was boldly fastened upon a limb, about four feet from the nest, with a clamp such as is used for fastening a camera to the handle-bars of bicycles. To the shutter of the camera a thread was tied, lowered to the ground, and carefully stretched to a point fifty feet away under a sheltering tree. Here I intended to wait until the Robin returned, then a pull on the thread would release the shutter, and a snapshot of her would be obtained. These plans, however, did not agree with the views of the albino, for she refused to have anything to do with the nest as long as the camera stayed there. Four hours later I retired in disgust. Robins had always been considered easy subjects to photograph, but this albino proved an exception.

A method was now resorted to which is often used to accustom birds to the presence of a camera. A box which looked like the camera was fastened in the

exact position the camera had occupied and left over night. On the next day the real camera was substituted for the "dummy." After recognizing it as harmless, the Robin made but a very short wait before her reappearance.

Only one who has attempted to take photographs in a thick bushy evergreen tree can understand the difficulties with this albino. The sunlight shining through incessantly moving needles left streaks of light and shade upon the nest. The



ALBINISTIC ROBIN ON NEST

branch above it was moved so as to give the sunlight a chance to get in, and thus good light was secured from eleven in the morning until half past two in the afternoon. The sun was excessively bright, for several negatives made on this, the first day of May, were too contrasty. The next day, however, the sky was covered with light fleecy clouds and beautiful negatives were obtained.

The illustration shows the Robin in a characteristic Robin attitude, sitting deeply down in the nest, carefully keeping the eggs warm, with her head and tail pointed upward at an angle.

For some unknown reason the nest and eggs were deserted after a few days, and soon the mother bird was again seen cramming her bill with nesting material selected from the dry grasses on the lawn. She flew with these to a crotch of a maple tree which stood thirty feet away from the other nesting-site. Four eggs, pale blue as before, were laid in the completed nest. Except for an occasional visit the birds were not disturbed and in due time succeeded in hatching three of the four eggs. The appearance of the young brought out the home love of the

father bird, and from this time on his presence was made known by loud cries of alarm. He was neither so conspicuous nor so solicitous as his mate, and, consequently, had heretofore escaped notice. He was not an albino, but was dressed in the usual clothes of the Robin.

It is a question as to who was more interested in those young birds, the parents or myself. Each new feather was anxiously examined with the hope of finding a tinge of white inherited from the mother. They persisted in being common everyday young Robins, and were still as others of their tribe when a tragedy occurred.

The night of June 4 was windy and rainy, such a night as generally places frail bird nests in great danger. Fears were expressed for the safety of the young Robins, and these proved to be only too well founded, for next day the nest presented a pitiful spectacle. The young had evidently been left unprotected through all that terrible night. They had cuddled up to one another as closely as possible, but were helpless without their mother's warm feathers to shield them from the cold and pelting rain. There, in the swaying tree top, the three deserted young birds perished. The question arose as to why their parents should have left them to the mercies of the storm. Two days later the reason for their apparent desertion was discovered. The birds' greatest enemy, the cat, had succeeded in catching the albino Robin, and her half-eaten body was found in a neighboring yard where it had been left by the feline destroyer.

WHAT THE CAT LEFT

RUFFED GROUSE ABOUT TO DRUM

Photographing a Ruffed Grouse

By JOHN WOODCOCK, Minnedosa, Man.

With a photograph by the author

ON May 24, 1908, I took my camera, a 4 x 5 Pony Premo, with an ordinary cheap lens, and set out for a bluff which I knew to be a favorite resort of Ruffed Grouse. The morning had been dark and gloomy with rain at intervals, but about 3 P.M. the clouds cleared away and the sun shone out, though not quite so brightly as was desirable for snapshot photography.

As soon as I reached the woods I heard a Grouse drumming, and soon came upon him standing on a large decayed log. Walking slowly up, I seated myself about thirty yards away and awaited developments. For about five minutes he hardly moved, then suddenly sat down on the log, and, with tail expanded and head thrust forward, began to flap his wings, slowly at first, but after three or four strokes moving them so rapidly as to make them almost invisible. The wings were held so as to beat forward and not down toward the log.

As a bank of dark clouds was coming up from the west, I had no time to lose so fastened the camera, with ball-and-socket clamp, to a tree about nine feet from the log, and attaching twenty-five feet of tubing with a bicycle pump on one end, and setting the shutter at one-half a second, with diaphragm at U. S. 8, I went away for a time to give the bird a chance to return.

In about half an hour I returned, to find the Grouse again drumming. I managed to creep up to the tubing, and just as he was preparing to drum again I worked the pump, but the click of the shutter did not disturb him at all.

GULLS AND CORMORANTS

Photographed by Mrs. Gardner F. G. Wells, at Avalon Island, Cal., May, 1907

The Migration of North American Sparrows

SECOND PAPER

Compiled by Professor W. W. Cooke, Chiefly from Data in the Biological Survey

With Drawings by Louis Agassiz Fuertes

(See frontispiece)

BAIRD'S SPARROW

SPRING MIGRATION

PLACE	Number of years' record	Average date of spring arrival	Earliest date of spring arrival
Huachuca Mountains, Ariz.			February 17, 1903
Central Missouri	3	March 21	March 17, 1895
Grinnell, Ia.			March 24, 1886
White Earth, Minn.			May 5, 1885
Harrisburg, N. D.			May 5, 1904
El Paso County, Colo.			May 6, 1873
Terry, Mont.			May 2, 1894
Aweme, Manitoba	2	May 12	May 11, 1909

The last in the spring were seen at Gainesville, Tex., April 24, 1884; St. Joseph, Mo., May 25, 1896; Grinnell, Ia., April 25, 1885; near the Huachuca Mountains, Ariz., May 3, 1903.

FALL MIGRATION

The first in the fall have been noted in San Luis Valley, Colo., August 22, 1874; Upper Pecos, N. M., August 11, 1903; eastern Arizona, August 16, 1874; southern Arizona, August 29, 1884; Las Vegas, N. M., September 2, 1903; San Juan Mountains, N. M., September 7, 1904. The species was seen at Aweme, Manitoba until October 5, 1907, and October 3, 1908; Grinnell, Ia., October 16, 1886; St. Charles, Mo., October 18, 1894; Bonham, Tex., November 5, 1889; Huachuca Mountains, October 24, 1907; a wanderer was taken November 13, 1899, at Montauk Point, N. Y.

GRASSHOPPER SPARROW; WESTERN GRASSHOPPER SPARROW

SPRING MIGRATION

PLACE	Number of years' record	Average date of spring arrival	Earliest date of spring arrival
Coosada, Ala.			March 19, 1878
St. Mary's, Ga.			April 6, 1902
Raleigh, N. C.	5	April 14	March 25, 1897
Weaverville, N. C.			April 18, 1894
Lynchburg, Va.			April 17, 1902
Washington, D. C.	12	April 22	April 17, 1905
Baltimore, Md.			April 11, 1905
Englewood, N. J.	4	May 3	April 30, 1904

SPRING MIGRATION, continued

PLACE	Number of years' record	Average date of spring arrival	Earliest date of spring arrival
Morristown, N. J.	4	May 4	April 30, 1890
Buffalo, N. Y.			May 2, 1894
Jewett City, Conn.	11	May 4	April 28, 1898
Framingham, Mass.	3	May 4	April 30, 1899
Hollis, N. H.			May 13, 1876
San Antonio, Tex.	4	March 15	February 13, 1895
New Orleans, La.	3	April 2	March 30, 1895
Huachuca Mountains, Ariz.			March 31, 1902
Athens, Tenn.	4	April 4	March 21, 1907
Lexington, Ky.	3	April 18	April 14, 1904
Ink, Mo.			March 19, 1907
St. Louis, Mo.	6	April 25	April 20, 1909
Chicago, Ill.	9	April 21	April 15, 1906
Brookville, Ind.	8	April 17	April 8, 1892
Bloomington, Ind.	6	April 20	April 12, 1903
Oberlin, O.	13	April 27	April 16, 1906
Wauseon, O.	8	April 27	April 19, 1894
Plymouth, Mich.	6	April 22	April 16, 1893
Grinnell, Ia.	6	April 20	April 14, 1886
Indianola, Ia.	6	April 25	April 21, 1901
Sioux City, Ia.	5	May 1	April 27, 1901
Onaga, Kans.	14	May 3	April 24, 1906
Southeastern Nebraska	5	May 5	April 22, 1899
Vermilion, S. D.			May 1, 1889
Yuma, Colo.	4	May 5	May 1, 1908
Columbia Falls, Mont.			May 2, 1896
Tacoma, Wash.			May 3, 1904
Okanagan Landing, B. C.			May 21, 1906

FALL MIGRATION

PLACE	Number of years' record	Average date of the last one seen	Latest date of the last one seen
Chicago, Ill.			October 5, 1907
Wauseon, O.	7	September 15	October 2, 1897
Bloomington, Ind.			October 4, 1885
Onaga, Kans.	7	October 4	October 22, 1905
Vermilion, S. D.			October 7, 1889
Grinnell, Ia.	5	October 14	October 19, 1889
Yuma, Colo.			October, 25, 1908
Athens, Tenn.			October 30, 1902
Jasper City, Mo.			November 15, 1902
Englewood, N. J.			October 11, 1885
Washington, D. C.	5	October 17	November 20, 1899
Raleigh, N. C.			October 22, 1892
Chester, S. C.			December 14, 1885

The Grasshopper Sparrow has a very interesting set of records from the lighthouses of southern Florida, principally from the lighthouse on Sombrero Key. Many individuals cross from Florida to spend the winter in Cuba. The earliest date of striking any of the lights is November 4, after most species have concluded their migration, and birds continue to strike until December 17. The

earliest date of striking the lights in the spring is April 3, at least a month after the beginning of northward migration, and the latest date of striking is May 12,—when the earliest migrants already have eggs in their nests.

HENSLOW'S SPARROW; WESTERN HENSLOW'S SPARROW

SPRING MIGRATION

This species winters in the Gulf States from Texas to Florida, and starts northward early in March; it has been noted at Raleigh, N. C., March 22, 1897, and March 18, 1898; at Washington, D. C., the average recorded date of arrival for nine years is April 18, and the earliest, April 10, 1889; but the birds probably arrive several days earlier than these dates would indicate; earliest at Baltimore, Md., April 8, 1900; Morristown, N. J., April 30, 1890; Bridgeport, Conn., April 30, 1903; Taunton, Mass., April 25, 1887; Webster, N. H., April 17, 1874; Boscawen, N. H., April 26, 1875; Tilton, N. H., April 17, 1905; Athens, Tenn., March 16, 1903; Shannon county, Mo., March 19, 1907; Iberia, Mo., March 7, 1904; St. Louis, Mo., April 17, 1909; Chicago, Ill., average for ten years, April, 23, earliest, April 5, 1904; Richmond, Ind., April 21, 1907; Waterloo, Ind., April 28, 1903; Ellsworth, O., April 23, 1908 and April 19, 1909; Oberlin, O., April 27, 1907; Youngstown, O., April 30, 1907; Detroit Mich., April 30, 1905, and April 30, 1908; Grinnell, Ia., average of five years, April 13, earliest, April 6, 1890; Burlington, Kans., April 27, 1891; Baldwin, Kans., April 18, 1906; Lawrence, Kans., April 19, 1906; Lincoln, Neb., April 22, 1899; Dunbar, Neb., April 30, 1904; Larimore, N. D., May 2, 1904, and May 8, 1905; Hallock, Minn., June 6, 1898.

FALL MIGRATION

The average for four years of the last seen at Washington, D. C., is October 13; latest, October 21, 1892; Berwyn, Pa., October 23, 1896; Waterloo, Ind., September 27, 1906; Chicago, Ill., September 26, 1896; Detroit Mich., October 2, 1904 and October 1, 1905; Grinnell, Ia., average of four years, October 11, latest, October 16, 1886; Shelter Island, N. Y., November 20, 1901; the first was seen at Ariel, Miss., October 9, 1897.

LECONTE'S SPARROW

SPRING MIGRATION

The principal winter home of this species is in Texas, and thence it begins its northward advance in February. The first were seen at Caddo, Okla., February 16, 1884, and two days later they were abundant. The general rate of advance is shown by the following dates of arrival: Lawrence, Kans., March 10, 1906 (a few wintered at Independence, Kans., the winter of 1904–5); Dunbar, Neb., April 7, 1906; Harrisburg, N. D., April 23, 1904; Indian Head, Sask., May 13, 1906; Edmonton, Alberta, May 26, 1897; Fort Chipewyan, Alberta,

May 22, 1908. To the eastward the corresponding dates are: Fayetteville, Ark., February 28, 1885; Quincy, Ill., March 14, 1889; Urbana, Ill., March 27, 1904; Russellville, Ky., March 19, 1904; Iowa, average of all the records for the state, April 15, earliest, March 24, 1901, at Keokuk; Chicago, Ill., average of four years, April 18, earliest, April 5, 1904; southern Minnesota, average of four years, April 26, earliest, April 18, 1894; spring records outside of the usual range of the species have been reported from Raleigh, N. C., April 21, 1894; Ross Lake, O., April 5, 1880 and Toronto, Ontario, May 5, 1897.

The breeding range extends from Minnesota and North Dakota to the Mackenzie Valley; south of the summer home, some records of the last seen are: Sapelo Island, Ga., February 2, 1888; Charleston, S. C., February 9, 1888; Lobdell, La., April 25, 1903; Gainesville, Tex., March 5, 1876; Caddo, Okla., March 1, 1884; Quincy, Ill., April 27, 1889; Chicago, Ill., May 4, 1907 and May 13, 1875; Davenport, Ia., May 12, 1906; La Crosse, Wis., May 13, 1907; Independence, Kans., April 20, 1906; Onaga, Kans., April 30, 1907.

The average date of appearance in the fall at Chicago, Ill., is September 13, earliest, September 8, 1898; Forest City, Ia., September 10, 1896; Lawrence, Kans., October 2, 1885 and October 7, 1906; Independence, Mo., October 5, 1901; Gainesville, Tex., October 27, 1884. A few Leconte's Sparrows wander each fall far to the southeastward to winter in South Carolina, Georgia and Florida. They arrive there late; Chester, S. C., November 11, 1881, and Rosewood, Fla., November 4, 1881, and remain there only until early February. The dates of the last seen in the fall are: Long Coteau River, N. D., September 9, 1873; Aweme, Manitoba, September 13, 1903, and September 18, 1904; Lanesboro, Minn., October 17, 1890; North Freedom, Wis., October 8, 1904; Davenport, Ia., October 14, 1905; Chicago, Ill., October 12, 1905; Sugar Creek Prairie, Ill., October 28, 1882; Nebraska City, Neb., November 6, 1900; St. Louis, Mo., November 10, 1878, and December 26, 1896; Russellville, Ky., December 28, 1904. Stragglers have been taken at Toronto, Ontario, May 5, 1897; Ithaca, N. Y., October 11, 1897; Breckenridge, Colo., October 2, 1886; and Fort Sherman, Idaho, September, 28, 1896.

STELLER'S JAY
Photographed by May Remington Thayer, Everett, Wash.

Notes on the Plumage of North American Sparrows

FIRST PAPER

By FRANK M. CHAPMAN

(See Frontispiece)

IN this series of articles it is proposed to comment briefly on the characters which distinguish the more closely related species and races of Sparrows figured in the accompanying plates, and also to call attention to their seasonal changes in plumage.

Sparrows, like other Passerine birds, are hatched with but a slight downy growth of feathers, well termed by Dwight the "natal down," which, while the bird is in the nest, is succeeded by the juvenal or nestling plumage to the tips of which portions of the natal down are generally attached when the bird leaves the nest. This nestling plumage is shortly succeeded by the winter plumage which is acquired by molt of the body feathers and also sometimes of the wings and tail.

The adult, following the prevailing law of feather renewal, passes from summer to winter plumage by a complete post-breeding molt. The spring molt is usually not extensive, and, in many species, the change from winter to breeding plumage is accomplished by wear.

It is proposed, however, to make these papers rather an aid to the identification of species than a study of molt, and those who are interested in that subject are referred to Dr. Dwight's admirable essay in the Annals of the New York Academy of Sciences (XIII, 1900, pp. 73-360).

The first five species treated here were figured in the last issue of BIRD-LORE; the next four are illustrated in this number, and, hereafter, the text will appear with the plate to which it refers.

Chipping Sparrow (Dec., Figs. 1 and 2). The sexes are alike, and in the adult plumage the species does not closely resemble any other of our Sparrows, the chestnut cap, black postocular stripe and black bill being its more obvious distinguishing characters. The nestling is streaked below, but fall specimens (Fig. 2, the underparts are here not quite gray enough), both of the adult and young, resemble each other; the crown is now streaked, the postocular stripe is less pronounced, and the bill is dusky. In general pattern of markings the bird now resembles both Brewer's and the Clay-colored Sparrows, but may be easily distinguished by its more rufous color. In the spring, the young bird acquires, and the adult regains, the breeding plumage by partial molt. The Western Chipping Sparrow resembles the eastern species, but is paler, and grayer above.

Tree Sparrow (Dec., Fig. 3). A blackish or chestnut spot in the center of the breast (which, however, is sometimes barely evident) and a yellow mandible are the Tree Sparrow's chief distinguishing marks. The sexes are alike, and the slight seasonal differences in plumage are occasioned by fading and wear. The nestling is heavily streaked below, but after molting into winter plumage resembles

the adult. The spring feather-growth is confined to the chin, and the breeding birds differ from winter ones in being somewhat grayer, in the absence of margins to the feathers of the crown and their reduction on the feathers of the back, giving to the last-named area a more sharply streaked appearance.

The Western Tree Sparrow differs from the eastern race chiefly in being paler above.

Field Sparrow (Dec., Fig. 4). The Field Sparrow needs comparison with no other species, its general reddish brown color and pinkish bill easily distinguishing it. The sexes are alike, and there are no marked seasonal changes in plumage. The nestling is streaked below, but in the fall the young bird resembles the adult, and both differ from summer specimens in being richer in tone and in having a darker suffusion of buff on the breast and sides. The spring molt appears to be restricted to the chin, and the breeding plumage is acquired by wear and fading.

The Western Field Sparrow is a strongly marked race which is much paler than the eastern form, the general tone of the color above being no browner than in the Clay-colored Sparrow.

Clay-colored Sparrow (Dec., Fig. 5). The Clay-colored and Brewer's Sparrows closely resemble one another and at times are distinguished with difficulty. In breeding plumage the former is somewhat browner above, with the black streaks decidedly broader; the hind-neck is grayer; the median crown stripe and superciliary line more pronounced, and there is a more or less sharply defined ear-patch. I have, however, seen fall and winter specimens in which these characters were less pronounced, and which so closely approached some specimens of Brewer's Sparrow that it was questionable to which species they belonged.

The Clay-colored Sparrow shows no variation with sex, and, as a rule, but little with age or season. Adults, in fall, resemble the young, and at this season the plumage averages browner than in summer; this affects the sides of the head and breast, and the superciliary line is not so well marked, the crown stripe less defined, and the gray hind-neck band is not evident. The spring molt, so far as I have observed, occurs in April and involves the chin, crown, wing-coverts and tertials; and the renewal of feathers in these parts, with some fading of the feathers which are not molted, brings the bird into breeding plumage.

Brewer's Sparrow (Dec., Fig. 6). This species may be known from its nearest relative, the Clay-colored Sparrow, by the characters mentioned under that species, with which it agrees in varying but little with age or season. Fall specimens are more buffy than those in summer plumage, and the young of the year, at this season, have the wing-coverts tipped with buff. The nestling is streaked below, and in this plumage is difficult to distinguish from the nestling of the Western Chipping Sparrow.

The spring molt appears to be confined to the head, where there is a slight feather-growth, and one April specimen has been examined which is acquiring

new tertials, but the change to summer plumage is affected chiefly by wear and fading.

Grasshopper Sparrow (Fig. 1). Small size, a short tail, the absence of black streaks, the yellow above the eye (in the adult), and the quail-like appearance of the plumage of the back, are the principal distinguishing marks of this species. The sexes are alike. The nestling has the breast conspicuously streaked and the upper parts paler than in the adult. This plumage, as Dr. Dwight has shown, is worn until August, and, by a complete molt, which involves the wings and tail as well as the body, is replaced by the winter plumage. This resembles that of the adult but lacks the yellow mark above the eye, and is deeper and richer than the adult summer plumage. The spring molt is limited chiefly to the head, the young bird now acquiring the yellow superciliary mark. Fading and wear further create the difference between the winter and breeding plumage.

The Western Grasshopper Sparrow is a paler form with more chestnut and less black above.

Henslow's Sparrow (Figs. 2 and 3). This species may be known by the buffy greenish markings of the head and neck (not buff enough in the plate) rufous-chestnut, finely margined back, streaked breast and small size. The sexes are alike. The winter plumages of both adults and young resemble each other and differ from the summer plumage in being richer and more intense in tone. The nestling (Fig. 3), reversing the condition which prevails with the Grasshopper Sparrow, is wholly or almost unstreaked below. Material is lacking to follow the molts of this species, which, however, probably resemble those of the Grasshopper Sparrow.

The Western Henslow's Sparrow resembles the eastern race but is paler.

Baird's Sparrow (Fig. 4). In the fresh fall plumage, shown in the plate, the back of Baird's Sparrow has the rounded markings characteristic of the Grasshopper and Henslow's Sparrows; but in worn, breeding plumage, when the feathers are bordered only laterally, the back more closely resembles that of the Savannah Sparrow. In either plumage, however, the bird may be known by its buff head. The nestling is streaked below, but apparently resembles the adult after the fall molt; material, however, is lacking from which to describe the molts of this species, but the difference between winter and breeding plumage is obviously occasioned chiefly by fading and wear.

Leconte's Sparrow (Figs. 5 and 6). The long, slender tail, reddish nape and buffy line over the eye, in connection with the streaks on the sides (and more rarely on the center of the breast), are the principal distinguishing characters of this species. The sexes are alike, and there are no marked seasonal changes in plumage. The nestling (Fig. 6) has the nape buffy and the feathers of the upper parts are widely bordered by this color. The change to winter plumage (which is like that of the adults) is accomplished by molt of the entire body feathers and at least the wing-coverts, but whether of the rest of the wing- and tail-feathers, I am unable to say. The spring molt is confined to the head and breast.

Bird-Lore's Tenth Christmas Census

THE unfavorable weather prevailing during Christmas week, and particularly on the day after Christmas, appears to have affected but little the enthusiasm of those who took part in BIRD-LORE'S Tenth Christmas Census.

The lists sent in show a general absence of the less common winter birds, such as Siskins, Redpolls, Pine Grosbeaks and Crossbills. Indeed, while the examination of lists for a series of years gives us valuable information in regard to the comparative abundance and distribution of the more common species, it requires only the returns of a single year to reveal the presence or absence of those species which are with us in great numbers some seasons and are wholly wanting in others.

The exigencies of space have made it possible for us to accept only one census from the same person, unless he was accompanied by different associates on other occasions. Furthermore, the lack of time for correspondence in regard to records where possibly a slip has been made in identification, has forced the editor to act without consultation with the author, and either query or omit certain records or lists entire. Other lists have been omitted because they were received too late for publication, and still others because they did not conform to the requirements of the standard established.

Lack of space also prevents our using various annotations in regard to place or birds, but we break this rule to include the interesting statement of Mr. Roy Latham in explanation of the remarkable lists made by himself and his brothers at Orient Point, L. I.

London, Ontario.—Dec. 23; 10 A.M. to 12 M. Clear; six inches of snow on ground; wind southwest, light; temp., 30°. Hairy Woodpecker, 4; Crow, 14; Redpoll, 6; Tree Sparrow, 4; Junco, 2; Brown Creeper, 1; White-breasted Nuthatch, 2; Chickadee, 12; Golden-crowned Kinglet, 3. Total, 9 species, 48 individuals.—FLOYD JONES and ALEX. EASTWOOD.

Millbrook, Ontario.—Dec. 26; 10.30 A.M. to 1.30 P.M. Five inches of snow; wind northerly; temp., 28°. Ruffed Grouse, 1; Downy Woodpecker, 1; Blue Jay, 3; Chickadee, 6. Total, 4 species, 11 individuals.—SAM. HUNTER.

Toronto, Ontario (High Park, Humber Bay and Mount Pleasant Cemetery).—Dec. 24; 7.50 to 11.45 A.M.; 12.50 to 3.30 P.M. Cloudy; about two inches of snow; wind west, light; temp., about 30°. American Herring Gull, 2; American Golden-eye, 10; American Scaup Duck, 12; other Ducks, (probably Golden-eyes and Scaups), about 300; Red-shouldered Hawk, 1; Downy Woodpecker, 2; Blue Jay, 2; American Crow, 4; Tree Sparrow, 10; Slate-colored Junco, 5; White-breasted Nuthatch, 1; Chickadee, 3. Total, 11 species, 352 individuals.—E. W. CALVERT.

Ottawa, Ontario.—Dec. 26; 9.30 A.M. to 12.30 P.M. Cloudy; about five inches of snow on ground; wind northeast, moderate; temp., 20°. Crow, 3; Goldfinch, 12; Chickadee, 8. Total, 3 species, 22 individuals.—A. G. KINGSTON.

Clarendon, Vt.—Dec. 26; 9.30 A.M. to 12 M. Cloudy; fourteen inches snow; wind north, light; temp., 15°. Barred Owl, 1; Downy Woodpecker, 2; Blue Jay, 4; Purple

Finch, 9; White-breasted Nuthatch, 3; Chickadee, 20; Golden-crowned Kinglet, 3. Total, 7 species, 42 individuals. Purple Finches have been plentiful this winter. I have not seen them wintering here before.—L. Henry Potter.

Essex Junction, Vt.—Dec. 24; 1 to 5 P.M. Clear; one foot of snow; wind east; temp., 24°. Ruffed Grouse, 1; Downy Woodpecker, 1; Blue Jay, 2; Crow, 1; Goldfinch, 6; Pine Siskin, 10; Snow Bunting, 30; Chickadee, 2. Total, 8 species, 53 individuals. There is a winter roost of hundreds of Crows in this vicinity. Have seen an unusual number of Snow Buntings this winter.—Carlton D. Howe.

Tilton, N. H.—Dec. 25; 10 A.M. to 2.45 P.M. Cloudy; about three inches of snow on ground; wind north, very light; temp., 18°. American Merganser, 19; Belted Kingfisher, 1; Canadian Ruffed Grouse, 3; Blue Jay, 9; Chickadee, 30. Total, 5 species, 62 individuals. As compared with last year, birds are rare and hard to find.—Edward H. Perkins.

Barnstable, Mass. (Sandy Neck).—Dec. 29; 7 A.M.to 5 P.M. Weather fine till 12 M. then snow; wind light; temp., 30°. Horned Grebe, 1; Loon, 5; Herring Gull, 30; Red-breasted Merganser, 1; Black Duck, 1; American Golden-eye, 3; Old Squaw, 10; Horned Lark, 6; Crow, 8; Meadowlark, 6; Ipswich Sparrow, 2; Seaside Sparrow, 2; Tree Sparrow, 8; Myrtle Warbler, 2. Total, 14 species, 85 individuals.—Alfred C. Redfield.

Boston, Mass. (Arnold Arboretum and Jamaica Pond).—Dec. 26; 2 to 5 P.M. Forty-mile snow-storm raging, snow 12 to 18 inches deep; wind northeast; temp., 27°. Mallard, 3; Black Duck, 54; Canvasback, 1; Lesser Scaup Duck, 2 (females); American Coot, 16; Bob-white, 12; Ruffed Grouse, 1; Flicker, 3; Blue Jay, 8; Crow, 5; Pine Siskin, 32; Junco, 2; Cedar Waxwing, 12; Chickadee, 8; Golden-crowned Kinglet, 2; Robin, 2; Ring-necked Pheasant, 1. Total, 17 species, 164 individuals.—Harold A. Zimmerman.

Boston, Mass. (Olmsted Park, Jamaica Pond and Arnold Arboretum).—Dec. 20; 9.15 A.M. to 12.30 P.M. Fair; ground bare; wind northwest, light; temp., 22° to 35°. Mallard, 2; Black Ducks, 150; Baldpate, 4; Canvasback, 1 (drake); Lesser Scaup Duck, 5; Ring-necked Duck, 3 (1 drake); Ruddy Duck, 5; Coot (Fulica), 33; Ruffed Grouse, 1; Northern Flicker, 8; Blue Jay, 9; Crow, 14; White-throated Sparrow, 3; Junco, 11; Song Sparrow, 3; Cedar Waxwing, 5; Mockingbird, 1; Golden-crowned Kinglet, 2. Total, 18 species, 260 individuals.—Horace W. Wright and E. C. Herrick.

Boston, Mass. (Fenway, Jamaica Pond and Arnold Arboretum).—Dec. 25; 10.15 A.M. to 1 P.M. Cloudy; ground bare; wind southwest, light; temp., 27°. Black and Red-legged Black Ducks, 52; Baldpate, 4; Canvasback, 1; Lesser Scaup Duck. 2; Coot, (Fulica), 16; Bob-white, 16; Downy Woodpecker, 1; Flicker, 10; Blue Jay, 10; Crow, 24; Goldfinch, 2; White-throated Sparrow, 1; Tree Sparrow, 1; Junco, 8; Song Sparrow, 1; Cedar Waxwing, 98; Northern Shrike, 1; Brown Creeper, 3; White-breasted Nuthatch, 3; Chickadee, 9; Golden-crowned Kinglet, 6; Robin, 1. Total, 22 species, 260 individuals.—R. M. Marble, Dr. Brainerd and Barron Brainerd.

Boston to Gloucester, Mass. (by boat).—Dec. 27; 2 P.M. to 4.30 P.M. Clear, moderate swell from the east; wind northwest; temp., 28°. Holbœll's Grebe, 2; Horned Grebe, 17; Black Guillemot, 2; Brunnich's Murre, 1; Dovekie, 7; Kittiwake, 208; Great Black-backed Gull, 40; Herring Gull, 1,531; Red-breasted Merganser, 171; Old Squaw, 7; Brant, 1. Total, 11 species, 1,987 individuals.—Norfolk Bird Club.

Cambridge, Mass. (Fresh Pond and Marshes).—Dec. 25; 9.15 to 11.45 A.M. Fair, becoming clouded; ground bare; wind northwest to southeast, light; temp., 22° to 34°. Herring Gull, 65; American Merganser, 11; Black Duck, 23; Ring-necked Pheasant, 2; Sparrow Hawk, 1; Flicker, 11; Crow, 2; Meadow Lark, 34; Tree Sparrow, 60; Song Sparrow, 32; Swamp Sparrow, 2; Chickadee, 4. Total, 12 species, 247 individuals.—Horace W. Wright and E. E. Caduc.

Ipswich, Mass.—Dec. 26; 1 to 4.15 P.M. Clear; ground covered with a foot of snow;

wind light; temp., 24°. Herring Gull, 35; Hawk, 1; Shore Lark, 30; Flicker, 1; Blue Jay, 1; Crow, 100; Junco,21 ; Chickadee, 8. Total, 8 species, 197 individuals.—Francis C. Wade, Henry Wilson and Harold Wilson.

Ipswich, Mass. (**Argilla Road, Beach and Dunes**).—Dec. 24; 9.45 A.M. to 4.15 P.M. Clear; ground bare; wind northwest, strong; temp., 25°. Holbœll's Grebe, 1; Horned Grebe, 9; Red-throated Loon, 2; Great Black-backed Gull, 30; Herring Gull, 191; Red-breasted Merganser, 325; Red-legged Black Duck, 5; Golden-eye, 31; Old Squaw, 27; White-winged Scoter, 1; Surf Scoter, 1; Rough-legged Hawk, 1; Sparrow Hawk, 2; Snowy Owl, 1; Flicker, 6; Horned Lark, 28; Blue Jay, 1; Crow, 820; Goldfinch, 2; Snow Bunting, 121; Ipswich Sparrow, 4; Savanna Sparrow, 1; Tree Sparrow, 24; Song Sparrow, 2; Myrtle Warbler, 74; Brown Creeper, 2; Chickadee, 28. Total, 27 species, 2,040 individuals.—Barron Brainerd, R. M. Marble, J. L. Peters and Harold Morse.

Jamaica Plain, Mass.—Dec. 25; 11 A.M. to 1 P.M. Fair; ground bare; wind west, light; temp., 30°. Mallard, 6; Black Duck, 18; American Widgeon, 3; Canvasback, 1; Lesser Scaup Duck, 1; American Coot, 15; Downy Woodpecker, 1; Flicker, 5; Blue Jay, 6; Crow, 12; Goldfinch, 2; Tree Sparrow, 3; Junco, 4; Song Sparrow, 1; Cedar Waxwing, 16; Brown Creeper, 1; Chickadee, 9; Golden-crowned Kinglet, 2. Total, 18 species, 106 individuals.—H. L. Barrett and W. L. Carlton.

Jamaica Pond.—Dec. 18; 9.25 to 10 A.M. **Cohasset,** 11.50 A.M. to 4.10 P.M. Clear; wind northwest, strong; temp., 26°. Holbœll's Grebe, 1; Loon, 6; Red-throated Loon, 1; Black Guillemot, 5; Great Black-backed Gull, 3; Herring Gull, 64; Red-breasted Merganser, 14; Black and Red-legged Black Ducks, 234; Mallard, 3; Baldpate, 4; Canvasback, 1; Scaup Duck, 1; Lesser Scaup Duck, 6; Ring-necked Duck, 3; Golden-eye, 18; Old Squaw, 1; Eider Duck, 2; American Scoter, 1; White-winged Scoter, 2; Ruddy Duck, 11; Coot (Fulica), 32; Downy Woodpecker, 1; Flicker, 6; Blue Jay, 2; Crow, 11; Goldfinch, 3; Snow Bunting, 1; Tree Sparrow, 3; Song Sparrow, 2; White-throated Sparrow, 2; Myrtle Warbler, 20; Cedar Waxwing, 6; White-breasted Nuthatch, 1; Chickadee, 17; Robin, 1. Total, 35 species, 489 individuals.—Barron Brainerd, J. L. Peters and John B. Brainerd, Jr.

Leominster, Mass.—Dec. 25; 1 to 3 P.M. Cloudy; fierce snow-storm raging; two feet of snow on the ground; wind northeast, blowing a gale; temp., 36°. Blue Jay, 2; Nuthatch 2; Chickadee, 6. Total, 3 species, 10 individuals.—Edwin Russell Davis.

Lynn to Little Nahant, Mass.—Dec. 27; 11.30 A.M. to 3.30 P.M. Clear; snow on the ground; wind west, very strong; temp., 25°. Brunnich's Murre, 1; Great Black-backed Gull, 1; Herring Gull, 500; Red-breasted Merganser, 1; Scaup Duck, 20; American Golden-eye, 8; Buffle-head, 12; Old Squaw, 50; White-winged Scoter, 20; Surf Scoter, 6; Ruddy Duck, 4; Horned Lark, 30; American Crow, 50; Savannah Sparrow, 1; Tree Sparrow, 4. Total, 15 species, 708 individuals. — Frank Conkling Seymour and Samuel Dowse Robbins.

Lynn, Swampscott and Nahant, Mass.—Dec. 28; 11 A.M. to 4.30 P.M. Clear; ground covered with a foot of snow, except on beaches, wind northwest, very light; temp., 22° to 40°. Holbœll's Grebe, 7; Horned Grebe, 2; Black Guillemot, 2; Black-backed Gull, 8; Herring Gull, 2,197; Red-breasted Merganser, 21; Golden-eye, 669; Bufflehead, 11; Old Squaw, 238; White-winged Scoter, 138; Surf Scoter, 23; Sparrow Hawk, 2; Horned Lark, 58; Crow, 16; Tree Sparrow, 2; Chickadee, 1. Total, 16 species, 3,394 individuals.—J. L. Peters, Barron Brainerd and R. L. Creesy.

Marshfield, Mass.—Dec. 25; 10.15 A.M. to 1.15 P.M. Partly cloudy; ground bare; wind west to southeast, light; temp., about 28°. Herring Gull, 6; Downy Woodpecker, 3; Flicker, 2; Blue Jay, 3; Crow, 10; Meadowlark, 1; Vesper (?) Sparrow, 5; Tree Sparrow, 40; Cedar Waxwing, 2; Shrike, 1; Myrtle Warbler, 12; Chickadee, 4; Robin, 13. Total, 13 species, 102 individuals.—Mrs. George L. Mason and George A. Mason (age 12).

Magnolia, Mass.—Dec. 18; 10.15 A.M. to 2.15 P.M. Clear; ground bare; wind southwest, light; temp., 32°. Holbœll's Grebe, 2; Horned Grebe, 7; Red-throated Loon, 1; Iceland Gull, 1; Herring Gull, 35; Red-breasted Merganser, 11; American Golden-eye, 5; Bufflehead, 8; Surf Scoter, 3; Northern Flicker, 3; American Crow, 20; Song Sparrow, 1; Northern Shrike, 1; Myrtle Warbler, 1; Carolina Wren, 2; Chickadee, 15. Total, 16 species, 116 individuals.—EDMUND and LIDIAN E. BRIDGE.

Nahant, Mass.—Dec. 27; 11.30 A.M. to 4 P.M. Clear and bright, after heavy snowstorm; wind northwest, light; temp., 23°. Brunnich's Murre, 2; Great Black-backed Gull, 8; Herring Gull, 2,000; Red-breasted Merganser, 2; Black Duck, 8; Scaup Duck, 75; American Golden-eye, 2; Bufflehead, 33; Old Squaw, 70; American Scoter, 1; White-winged Scoter, 100; Surf Scoter, 3; Horned Lark, 50; American Crow, 6; Lapland Longspur, 1; Savanna Sparrow, 1. Total, 16 species, 2,362 individuals.—MRS. WILLIAM M. LEVEY and W. CHARLESWORTH LEVEY.

Nahant, Lynn Beach and Fisherman's Beach, Swampscott.—Dec. 23; 9.15 A.M. to 2.30 P.M. Fair; ground bare; wind northwest, fresh; temp., 24° to 39°. Holbœll's Grebe, 3; Horned Grebe, 7; Loon, 1; Kittiwake, 3; Great Black-backed Gull, 2; Iceland Gull, 1; Herring Gull, 1,200; Red-breasted Merganser, 2; Black Duck, 25; Golden-eye, 22; Bufflehead, 40; Old Squaw, 13; White-winged Scoter, 56; Surf Scoter, 11; Horned Lark, 46; Crow, 38; Song Sparrow, 1. Total, 17 species, 1,471 individuals.—HORACE W. WRIGHT.

Revere, Mass. (**Salt marshes**).—Dec. 25; 8 to 10 A.M. Clear weather; ground bare; no wind; temp., 28°. Great Black-backed Gull, 1; Herring Gull, 10; Sparrow Hawk, 1; Short-eared Owl, 1; Flicker, 2; Crow, about 150; Meadowlark, 4; Song Sparrow, 2. Total, 8 species, 171 individuals.—HORACE O. GREEN.

Rockport, Mass.—Dec. 21; 11.15 A.M. to 2.15 P.M. Clear; ground bare; wind northwest, strong; temp., 36°. Loon, 1; Red-throated Loon, 1; Black Guillemot, 6; Black-backed Gull, 3; Herring Gull, 250 (estimated); Red-breasted Merganser, 18; American Golden-eye, 4; Purple Sandpiper, 30 (estimated); Flicker, 5; Crow, 6; Song Sparrow, 2; Myrtle Warbler, 7. Total, 12 species, 333 individuals.—E. D. BOARDMAN and LIDIAN E. BRIDGE.

Spencer, Mass.—Dec. 25; 9 A.M. to 12 M. Cloudy; ground bare, with patches of snow, wind northwest, very light; temp., cold. Ruffed Grouse, 4; Downy Woodpecker, 1; Blue Jay, 10; Crow, 5; Tree Sparrow, 5; Chickadee, 9. Total, 6 species, 34 individuals.—HAROLD H. BLANCHARD.

Squantum and Moon Island, Mass.—Dec. 29; 1 to 3 P.M. Cloudy; over a foot of snow; wind west, light; temp., 20°. Holbœll's Grebe, 1; Kumlien's Gull, 1; Great Black-backed Gull, 1; Herring Gull, 337; American Merganser, 3; Red-breasted Merganser, 4; Scaup Duck, 35; Golden-eye, 237; Old Squaw, 1; Flicker, 4; Horned Lark, 1; Crow, 37; Meadowlark, 12; Tree Sparrow, 25. Total, 14 species, 699 individuals.—J. L. PETERS.

The Kumlien's Gull was feeding and approached within five yards, making identification as positive as possible without a gun.—J. L. PETERS and BARON BRAINERD.

Stoughton, Mass.—Dec. 23; 9 A.M. to 3 P.M. Clear; ground practically bare; wind west, strong; temp., 32°. Ruffed Grouse, 4; Downy Woodpecker, 1; Blue Jay, 1; Crow, 2; Goldfinch, 20; Tree Sparrow, 2; Junco, 20; Shrike (doubtless Northern), 1; Myrtle Warbler, 3; Chickadee, 18; Golden-crowned Kinglet, 3. Total, 11 species, 75 individuals.—SIDNEY F. BLAKE.

West Roxbury, Mass.—Dec. 21; 10 A.M. to 1 P.M. Clear; ground bare; wind west, brisk; temp., 24°. Downy Woodpecker, 1; Flicker, 3; Blue Jay, 4; Crow, 14; Goldfinch, 1; Cedarbird, 40; Northern Shrike, 1; Myrtle Warbler, 4; White-breasted Nuthatch, 1; Chickadee, 18; Golden-crowned Kinglet, 1. Total, 11 species, 88 individuals.—CHARLES E. HEIL.

Glocester, R. I.—Dec. 25; 8.30 to 10 A.M. Overcast; ground bare; wind west, very light; temp., 16°. Blue Jay, 2; Goldfinch, 20; Tree Sparrow, 15. Total, 3 species, 37 individuals.—J. Irving Hill.

Manville, R. I.—Dec. 25; 2 to 4 P.M. Cloudy; snowstorm brewing; no wind; temp., 30°. Blue Jay, 1; Crow, 2; Goldfinch, 1; Tree Sparrow, 50; Song Sparrow, 2; Great Northern Shrike, 1; Chickadee, 1. Total, 7 species, 58 individuals. On November 15 a Towhee was positively identified.—Anna P. C. Mowry.

Pawtuxet, R. I.—Dec. 21; 10.30 A.M. to 12.15 P.M. Clear; ground bare; wind west, brisk. Herring Gull, 45; White-winged Scoter, 5; Flicker, 5; Crow, 4; Myrtle Warbler, 8; Brown Creeper, 1; Chickadee, 7. Total, 7 species, 75 individuals. Other Ducks in the bay. Saw a Meadowlark December 15.—Charles H. Abbott.

Woonsocket, R. I.—Dec. 25; 10.15 A.M. to 12.45 P.M. Cloudy; ground bare; wind southeast, very light; temp., 22° to 28°. Blue Jay, 5; Crow, 8; Tree Sparrow, 25; Junco, 200; Song Sparrow, 1; Chickadee, 6; Golden-crowned Kinglet, 5. Total, 7 species, 250 individuals.—Clarence M. Arnold.

East Haven, Conn., Saltonstall Ridge and Lake Saltonstall.—Dec. 25; 9 A.M. to 12.30 P.M. Cloudy; snowing, ground bare; wind brisk, north; temp., 30°. Herring Gull, 283; Black Duck, 18; American Golden-eye, 4; Barred Owl, 1; Screech Owl, 1 (found dead by railroad track); Blue Jay, 4; Crow, 35; Starling, 1; Meadowlark, 2; White-throated Sparrow, 3; Tree Sparrow, 52; Junco, 31; Song Sparrow, 1; Chickadee, 27; Golden-crowned Kinglet, 1; Robin, 2. Total, 16 species, 466 individuals.—Clifford H. Pangburn and Aretas A. Saunders.

New Haven, Conn. (**Edgewood Park and Mitchell's Hill to West Haven**).—Dec. 25; 9.30 A.M. to 12.45 P.M. Cloudy to snowing; wind light, northeast; temp., 29°. Herring Gull, 60; Red-shouldered Hawk, 1; Sparrow Hawk (?), 1; Hawk (unidentified), 1; Downy Woodpecker, 4; Flicker, 1; Blue Jay, 6; Crow, 12; Starling, 1; Goldfinch, 37; Tree Sparrow, 20; Song Sparrow, 4; Swamp Sparrow, 1; Chickadee, 7. Total, 14 species, 156 individuals.—Albert W. Honywill, Jr., and Dwight B. Pangburn.

New Haven, Conn. Seen while skeeing on Mitchell's Hill.—Dec. 27; 9.30 to 11 A.M. Weather clear; about eight inches of soft snow on ground; temp., 20°. Hairy Woodpecker, 1; Downy Woodpecker, 4; Blue Jay, 1; Crow, 6; Starling, 7; Goldfinch, 8; Tree Sparrow, 3; Junco, 3; Cedar Waxwing, 6; Brown Creeper, 1; White-breasted Nuthatch, 4; Chickadee, 7. Total, 12 species, 51 individuals.—Clifford H. Pangburn.

New Haven, Conn. (**Edgewood Park and Mitchell's Hill.**)—Dec. 28; 11 A.M. to 1.35 P.M. Clear; eight to ten inches of light snow on ground; light wind; temp., 30°. Downy Woodpecker, 6; Flicker, 1; Blue Jay, 3; Crow, 14; Starling, 11; Goldfinch, 3; Tree Sparrow, 40; Song Sparrow, 2; Swamp Sparrow, 1; Junco, 15; Northern Shrike, 2; Myrtle Warbler, 2; White-breasted Nuthatch, 3; Chickadee, 3. Total, 14 species, 106 individuals. A Hermit Thrush was observed on December 22, making a total of thirty species known to have been present in the New Haven region between December 22 and 28.—Albert W. Honywill, Jr.

New London, Conn.—Dec. 27; six hours' time. Clear; ground snow-covered; wind west, strong; temp., 33°. Herring Gull, 64; Ducks (species), 20; Bufflehead, 2; Sparrow Hawk, 1; Horned Lark, 50; Crow, 3; Meadowlark, 2; Grass Finch (?), 1; Junco, 27; Tree Sparrow, 15; Song Sparrow, 3; Myrtle Warbler, 1; Chickadee, 1; Robin, 1; Bluebird, 1 (singing). Total, 15 species, 192 individuals.—Frances M. Graves.

Talmadge Hill, Conn.—Dec. 25; 1.30 to 2 P.M., and 2.30 to 3.30 P.M. Clear; ground bare; wind northwest; temp., 36°. Sharp-shinned Hawk, 1; Crow, 3; Meadowlark, 2; White-breasted Nuthatch, 2; Robin, 1. Total, 5 species, 9 individuals.—H. E. Jones.

Waterbury, Conn. (**Heffrin's Pond and Brown's Farm to Oakville**).—Dec. 28; 9.30 A.M. to 12.30 P.M. Fair; temp., 12° to 38°. Downy Woodpecker, 2; Blue Jay, 5; Crow, 6; Tree Sparrow, 69; Junco, 1; Song Sparrow, 3; White-breasted Nuthatch, 1;

Chickadee, 2. Total, 8 species, 89 individuals. A pair of Starlings have been wintering here.—Norman B. Pilling.

West Hartford, Conn.—Dec. 25; ten-mile walk; 8 A.M. to 12 M. Cloudy; ground mainly bare; temp., 19°. Ruffed Grouse, 1; Hairy Woodpecker, 3; Downy Woodpecker, 2; Blue Jay, 5; American Crow, 93; Tree Sparrow, 70; White-breasted Nuthatch, 7; Chickadee, 21. Total, 8 species, 201 individuals.—Myrton T. Smith.

Westville, Conn.—Dec. 22; about 10 A.M. Cloudy; ground bare; wind north, light; temp., 26°. Hawk, 1; Owl, 1; Downy Woodpecker, 5; Blue Jay, 4; Crow, 6; Starling, 25; Meadowlark, 6; Purple Finch, 3; Goldfinch, 8; Tree Sparrow, 6; Junco, 3; Song Sparrow, 2; Brown Creeper, 3; Chickadee, 20; Golden-crowned Kinglet, 3; Robin, 3; Bluebird, 4. Total, 17 species, 106 individuals.—Mrs. C. A. Dykeman.

Afton, N. Y.—Dec. 24; 2 to 4.30 P.M. Light wind; temp., 38°. Ruffed Grouse, 1; Hairy Woodpecker, 1; Crow, 1; Tree Sparrow, 106; White-breasted Nuthatch, 1; Chickadee, 10; Robin, 1. Total, 7 species, 121 individuals.—A. S. Beatman.

Brooklyn, N. Y. (Prospect Park).—Dec. 23; 12.30 to 4 P.M. Partly cloudy; ground bare; wind northeast, moderate; temp., 38° to 40°. Sharp-shinned Hawk, 1; Downy Woodpecker, 1; Starling, 22; White-throated Sparrow, 6; Junco, 6; Song Sparrow, 1; Fox Sparrow, 2; Golden-crowned Kinglet, 1; Robin, 5. Total, 9 species, 45 individuals.—Mrs. Charles S. Hartwell.

Brooklyn, N. Y. (Prospect Park).—Dec. 27; 2 to 4.30 P.M. Clear; ground covered with ten inches of snow; light, west wind; temp., 32°. Herring Gull, 1; Starling, 40; Fox Sparrow, 2; White-throated Sparrow, 7; Junco, 1; Brown Creeper, 1; Robin, 1. Total, 7 species, 53 individuals. On December 26, in heavy snowstorm, we saw Red-shouldered Hawk, 1; Song Sparrow, 1; White-throated Sparrow, 6.—Kate P. and E. W. Victor.

Brooklyn, N. Y. (Prospect Park).—Dec. 25; 8 to 11 A.M. Cloudy; ground bare; wind east; temp., 30°. Herring Gull, 7; Black-crowned Night Heron, 1; Starling, 47; White-throated Sparrow, 12; Junco, 5; Fox Sparrow, 1; Robin, 2. Total, 7 species, 75 individuals.—Edward Fleischer.

Buffalo, N. Y.—Dec. 24; 1 to 3 P.M. Clear; ground snow covered; wind west, light; temp., 28°. Downy Woodpecker, 2; White-breasted Nuthatch, 3; Brown Creeper, 2; Total, 3 species, 7 individuals.—Mrs. G. M. Turner.

Buffalo, N. Y.—Dec. 25; 9 to 11 A.M. Snowing rapidly; ground well covered; wind northeast, strong; temp., 24°. Crow, 1; Brown Creeper, 2. Total, 2 species, 3 individuals.—G. M. Turner.

Geneva, N. Y. (Eight miles along west shore Seneca Lake).—Dec. 28; 2.30 to 4.45 P.M. Sky overcast; some snow at intervals; no wind; temp., 28° to 30°. Horned Grebe, 10; Pied-billed Grebe, 1; Herring Gull, 4; Ring-billed Gull, 2; Redhead, 150; American Scaup, 20; Lesser Scaup, 2; American Golden-eye, 300; Bufflehead, 1; Old Squaw, 11; Downy Woodpecker, 1; Crow, 125; Snow Bunting, 1,000; Ring-necked Pheasant, 1. Total, 15 species, about 1,600 individuals.—F. H. Hall.

Geneva, N. Y.—Dec. 26; 9 A.M. to 12.30 P.M. Steady snow; brisk, northwest wind; temp., about 30°. Seven and one-half inches of snow during previous twenty-four hours. Horned Grebe, 3; Herring Gull, 5; Ring-billed Gull, 2; American Scaup Duck, 3; American Golden-eye, 3; Old Squaw, 2; Ducks (species unknown), 50; Downy Woodpecker, 1; Crow, 6; Tree Sparrow, 1; Junco, 7; Song Sparrow, 1; White-breasted Nuthatch, 2; Chickadee, 8; Robin, 1. Total, 14 species, 95 individuals.—Unsigned.

Long Beach, L. I., N. Y.—10.30 A.M. to 5 P.M. At first overcast, clearing at 2.30 P.M. wind light in morning and afternoon, strong at midday, west to northwest; beach bare; dunes and marshes deeply covered with snow; ground frozen; temp., 25°. Horned Grebe, 3; Great Black-backed Gull, 500(estimated); Herring Gull, 100,000; Ring-billed Gull, 1; Red-breasted Merganser, 5; Black Duck, 1,000 (estimated, five large beds as well as smaller flocks); American Scaup Duck, 1; American Golden-eye, 15; Old Squaw,

500 (estimated); American Scoter, 2; White-winged Scoter, 4; Surf Scoter, 1; Rough-legged (?) Hawk, 1; Short-eared Owl, 2; Horned Lark, 16; Crow, 100; Meadowlark, 15; Snowflake, 45; Savanna Sparrow, 15; Sharp-tailed Sparrow, 1 (a genuine surprise; satisfactorily observed at a distance of twelve feet with powerful binoculars for several minutes); Tree Sparrow, 26; Song Sparrow, 5; Myrtle Warbler, 3. Total, 23 species, 2,261 individuals and Herring Gulls. Seven gales of last two days probably account for abundance of water birds. The Herring Gulls were a very remarkable sight. The marshes were white with them in every direction. They were sitting on the ice of the estuaries, or floating in the open pools. One vast continuous flock lined the ocean front on the beach for 6 miles. Large flocks floated on the ocean itself, and parties of a dozen or more were flying up and down the beach far out at sea continuously.—Ludlow Griscom.

Mastic, Long Island, N. Y.—Dec. 25; 8.45 A.M. to 5.05 P.M. Cloudy; ground bare, in morning; heavy snow, changing to rain, in afternoon; wind east, light; temp., 32°. Bob-white, 25; Ruffed Grouse, 2; Mourning Dove, 1; Downy Woodpecker, 1; Flicker, 1; Blue Jay, 4; Crow, 12; Rusty Blackbird, 1; Goldfinch, 25; Tree Sparrow, 5; Song Sparrow, 8; Swamp Sparrow, 1; Myrtle Warbler, 2; Brown Creeper, 1; White-breasted Nuthatch, 2; Chickadee, 6; Golden-crowned Kinglet, 30. Total, 17 species, 127 individuals.—Francis Harper.

New York City (Bronx Park, Hemlock Grove and beyond).—Dec. 24; 9.30 A.M. to 12.30 P.M. Clear; ground bare; light, northwest wind; temp., 35°. Downy Woodpecker, 2; Flicker, 7; Crow, 8; Starling, 15; Goldfinch, 6; White-throated Sparrow, 1; Tree Sparrow, 12; Brown Creeper, 5; White-breasted Nuthatch, 3; Chickadee, 1. Total, 10 species, 60 individuals.—Ludlow Griscom and Stanley V. Ladow.

New York City (Central Park).—Dec. 27; 10.40 to 11.50 A.M. Cloudy; ground with about twelve inches of snow; wind southwest, light; temp., about 40°. Herring Gull, 25; Downy Woodpecker, 4; Starling, 25; Baltimore Oriole, 1 (male); White-throated Sparrow, 3; Junco, 2; Song Sparrow, 3; Cardinal, 2. Total, 8 species, 65 individuals.—George E. Hix.

New York City (Central Park).—Dec. 25; 9.30 to 11.30 A.M. Cloudy; beginning to snow at 11.15 A.M. Wind northeast; ground bare; temp., 32°. Herring Gull, 1; Downy Woodpecker, 6; Starling, 58; Baltimore Oriole, 1; White-throated Sparrow, 5; Junco, 4; Song Sparrow, 1; Fox Sparrow, 2; Cardinal, 5; Winter Wren, 2; Brown Creeper, 1. Total, 11 species, 86 individuals. On December 21, a Robin and a Brown Thrasher, and on December 23, a Sharp-shinned Hawk and a Goldfinch, were seen.—Anne A. Crolius.

New York City (Central Park).—Dec. 27; 10 A.M. to 2.35 P.M. Mostly cloudy; ten inches of snow; moderate, southwest wind; temp., 25° to 28°. Horned Grebe, 1 (the first record, I believe, for the Park); Herring Gull, 110; Woodcock, 1 (the first winter record, I believe, for the Park); Downy Woodpecker, 6; Starling, 23; Baltimore Oriole, 1, male (which has been here for several weeks,—details in a future Bird-Lore); White-throated Sparrow, 6; Junco, 3; Song Sparrow, 3; Cardinal, 5; Brown Thrasher, 1; Winter Wren, 1; Brown Creeper, 1; White-breasted Nuthatch, 1; Hermit Thrush, 1. Total, 15 species, about 165 individuals.—Charles H. Rogers.

Niagara Falls, N. Y.—Dec. 25; 3 to 5 P.M. Wind west, light; snowing, ground covered; temp., 28°. Red-breasted Merganser, 1; Black Duck, 1; American Scaup, about 67; American Golden-eye, over 200; Old Squaw, about 350. Total, 5 species, about 620 individuals.—James Savage.

Orient, Long Island, N. Y.—7 A.M. to 5 P.M. Clear; ground bare; wind northwest, fresh; temp., 20° to 28°. Horned Grebe, 15; Loon, 15; Red-throated Loon, 1; Black-backed Gull, 1; Herring Gull, 325; Bonaparte Gull, 2; Merganser, 2; Red-breasted Merganser, 21; Black Duck, 3; Greater Scaup Duck, 345; Golden-eye, 3; Bufflehead, 112

(unusually common); Old Squaw, 836; Scoter, 1; White-winged Scoter, 4; Surf Scoter 525; Brant, 7; Woodcock, 2; Wilson Snipe, 1; Mourning Dove, 1; Sharp-shinned Hawk, 1; Saw-whet Owl, 1; Screech Owl, 3; Belted Kingfisher, 1; Downy Woodpecker. 2; Flicker, 15; Horned Lark, 520; Common Crow, 317; Fish Crow, 4; Starling, 14; Meadowlark, 166 (several singing); Goldfinch, 22; Pine Siskin, 3; Snow Bunting, 9: Lapland Longspur, 5; Ipswich Sparrow, 1; Savanna Sparrow, 3; White-throated Sparrow, 1; Tree Sparrow, 280; Field Sparrow, 1; Junco, 2; Song Sparrow, 150 (one singing); Swamp Sparrow, 7; Northern Shrike, 1; Myrtle Warbler, 143; Pipit, 39; Winter Wren, 1; Chickadee, 130; Golden-crowned Kinglet, 11; Ruby-crowned Kinglet, 1; (another was seen on December 12); Robin, 14. Total, 51 species, 4,012 individuals. During the preceding week the following additional species were observed: Glaucous Gull, 1; Bittern, 1; Canada Goose, 64; Bob-white, 22; Marsh Hawk, 1; Rough-legged Hawk, 1; Blue Jay, 1; Red Crossbill, 2; Red-headed Woodpecker, 1 (recorded three times this season); Cardinal, 1; Cedar-bird, 4; Fox Sparrow, 1; Carolina Wren, 1.—Harry, Frank and Roy Latham.

Statement by Roy Latham.—Bird students have repeatedly asked how we succeeded each Christmas in obtaining such a generous list of birds. Our region is naturally rich in bird-life, being so situated that we have a splendid combination of land and water birds.

Orient is wedge-shaped and washed by wide seas on either side. The influx of the migration enters at the narrow end. In winter, with the small land birds, much of their movements occur in the daytime; especially is this true of the Horned Larks, which follow the chain of islands from the New England coast to Long Island. One standing on the eastern tip of Orient Point fork can note company after company of Larks, Pipits, Snow Buntings and Crossbills arriving from Plum Island, which lies in a northeasterly direction just beyond the racing tide-way, known as 'Plum Gut.'

Gardiner's Island, in view six miles due southeast, is a mighty factor in Orient bird-life. We depend on the surplus from this bountiful Island to swell our list. Many species wander from there to our shores and pass a day or two. With Hawks this is most notable.

Our Crows, too, each night disappear, regardless of the weather, in a southeastly direction, and return each morning between dawn and sunrise. This fact is so well known that for years the farmers have termed the Crows "Gardiner's Island Crows."

The most interesting connection between the Island and Orient is the Black Ducks which seek our marshes for food on nights and stormy days, and use the Island as a refuge. A complete search of Orient on a pleasant day often fails to reveal a single member of this species. In the evening, an hour after dusk on the same day, it is common to find several hundred on the same grounds. At dusk they come whistling in from the east in pairs and small bands, and directly their quacking is heard from every quarter of the marsh and continues throughout the night. At dawn, or just before, these Duskys leave for their haven of safety.

On stormy days hundreds and hundreds of them come seeking food and shelter at the edge of the woods on the flooded meadows. Some are stupidly tame, and are potted mercilessly by shooters. The newcomers actually decoying to the slain fowl as they lie lifeless on the water.

Since the protection during late winter and spring, Black Ducks are becoming less uncommon on pleasant days, as well as increasing.

The climate in our vicinity being modified by deep salt seas, the snow-storms are rare, or turn into rain, while fifty miles west, on the island, it is snowing heavily, consequently transit stragglers en route halt for food and rest, where fields are bare and waters unfrozen. There are few days in winter when one can not find some unexpected bird loitering in field, marsh or bay.

It is a great opportunity, if one knows every foot of their territory and just where to

look for certain birds that winter sparingly in these regions. In taking the Christmas Census there are three brothers of us, each taking observations on a different route, and thus covering practically all of Orient. The list of either singly would be very modest indeed, the largest not exceeding 35 species and the shortest less than 20. Each route takes one man all day, so the list could not be lengthened, yet the smallest list contained several species, not noted by the other observers, one of them being the Mourning Dove, a new late record, and rare indeed for Christmas. One of the other lists had the only Ipswich Sparrow, Ruby-crowned Kinglet, Wilson's Snipe, Shrike and others. While the last list had the only Brant, Woodcock, Longspur, Bonaparte Gull, Saw-whet Owl and numerous water-fowl. In the evening at the close of the hunt when the three lists are combined it makes a noble list indeed. It is very improbable that any species escape us, therefore we know definitely just how the bird-life stands each Christmas on our little Orient peninsula.—Roy Latham.

Pelham Manor, N.Y.—Dec. 24; 9 A.M. to 1 P.M. Clear; ground bare; light wind; temp., 30°. Herring Gull, 10; Bob-white, 4; Blue Jay, 1; American Crow, 150; Starling, 50; White-throated Sparrow, 1; Junco, 1; Song Sparrow, 1; Chickadee, 3; Bluebird, 1. Total, 10 species, 222 individuals.—Robert Crane.

Pulaski, Oswego Co., N. Y.—Dec. 25; 9.45 to 10.50 A.M., and 2 to 3.15 P.M. Cloudy; wind east, moderate; snow two feet deep; temp., 26°. Ruffed Grouse, 1; Hairy Woodpecker, 2; Downy Woodpecker, 5; Blue Jay, 4; White-breasted Nuthatch, 7; Black-capped Chickadee, 18. Total, 6 species, 37 individuals. Tree Sparrows seen December 14. Crows and English Sparrows numerous. A Meadowlark was positively identified near Pulaski on December 16.—Hugh F. Whitney.

Port Dickinson, N. Y.—Dec. 25; 2 to 5 P.M. Heavy snow-storm; strong, east wind. Ruffed Grouse, 1; Crow, 200; White-breasted Nuthatch, 3; Chickadee, 5; Bluebird, 1. Total, 5 species, 210 individuals.—John M. Rogers.

Rochester, N. Y. (Forest Lawn).—Dec. 25; 7 to 10 A.M. Cloudy at start, snow falling later; ground with light covering of snow; wind southeast, brisk; temp., 29°. Downy Woodpecker, 1; Crow, 10; Tree Sparrow, 20; Song Sparrow, 1; Winter Wren, 1; White-breasted Nuthatch, 2. Total, 6 species, 35 individuals.—Nettie Sellinger Pierce.

Setauket, L. I., N. Y.—Dec. 25; all day. Morning cloudy; ground bare; began to snow at noon; wind southeast, light; temp., 35° to 26°. Loon, 5; Herring Gull, 35; American Merganser, 25; Black Duck, 2; Old Squaw, 70; Scoter, 1,000; Horned Lark, 21; Crow, 24; Starling, 11; Goldfinch, 2; Chickadee, 6. Total, 11 species, 1,201 individuals.—Russell W. Strong.

Syracuse, N. Y.—Dec. 27; 9 A.M. to 12 M. Snowing, with two feet of snow on the ground; wind light, north; temp., 25°. Black-throated Loon, 6; Herring Gull, 5; Black Duck, 25; Bufflehead, 7; Canada Goose, 8; Cooper's Hawk, 2; Horned Lark, 1; Crow, 5; Tree Sparrow, 2; Chickadee, 2; Total, 10 species, 61 individuals. Saw a Northern Shrike on December 21 and a Sharp-shinned Hawk on December 23.—Winthrop T. Pennock.

Bernardsville, N. J.—Dec. 20. Cold; temp., 10° at 8 A.M. Crow, 6; Tree Sparrow, a small flock; Junco, 1. Total, 3 species, 16 individuals. On December 23 a Kingfisher was seen.—John Dryden Kuser.

Bloomfield and Newark, N. J.—Dec. 25; 9.30 to 11.30 A.M. Cloudy until noon; snow in afternoon; ground bare during taking of census; no wind, temp., 30° to 38°. Hairy Woodpecker, 1; Downy Woodpecker, 3; Starling, common; White-throated Sparrow, 4; Tree Sparrow, 75; Junco, 1; Song Sparrow, 1; White-breasted Nuthatch, 1; Robin, 1. Total, 9 species, 87 individuals.—Louis S. Kohler.

Hackettstown, N. J.—Dec. 23; 9.20 A.M. to 12.15 P.M. Partly cloudy; temp., 32°. Ruffed Grouse, 1; Downy Woodpecker, 1; Flicker, 2; Blue Jay, 1; Crow, 1; Goldfinch, 1; Tree Sparrow, 2; Junco, 5; Song Sparrow, 4; Myrtle Warbler, 1; Winter Wren, 1;

Chickadee, 7; English Pheasant, 1. Total, 13 species, 28 individuals.—Mary Pierson Allen.

Haddonfield, N. J.—Dec. 28; 7 to 10 A.M. Clear; wind southwest, very light; about one foot of snow on ground; temp., 30° to 36°. Distance walked, three miles. Kingfisher, 1; Downy Woodpecker, 2; Flicker, 1; Blue Jay, 5; Crow, 7; Goldfinch, 1; White-throated Sparrow, 18; Tree Sparrow, 2; Junco, 12; Song Sparrow, 7; Cardinal, 8; Carolina Wren, 2; Winter Wren, 1; White-breasted Nuthatch, 1; Tufted Titmouse, 4; Chickadee, 11. Total, 16 species, 83 individuals.—S. Earl Riddle.

Moorestown, N. J.—Dec. 25; 6.30 to 7.40 A.M., 8.10 A.M. to 12.30 P.M., 2 to 5.30 P.M. Cloudy; wind east, scarcely perceptible; temp., (at start) 26°. Ground bare; 9.30 A.M. snow began falling without intermission the rest of the day. Depth at 5.30 P.M. four and one-fourth inches. Cooper's Hawk, 2; Red-tailed Hawk, 2; Red-shouldered Hawk, 1; Sparrow Hawk, 1; Kingfisher, 1; Hairy Woodpecker, 2; Downy Woodpecker, 5; Flicker, 2 (feeding on Poison Ivy berries); Horned Lark, 51; Blue Jay, 4; Crow, (many thousand flying to roost); European Starling, 2; Meadowlark, 30; Goldfinch, 1; White-throated Sparrow, 7; Tree Sparrow, 10; Field Sparrow, 4; Junco, 89; Song Sparrow, 53; Cardinal, 8; Northern Shrike, 3; Carolina Wren, 3; Winter Wren, 3; Tufted Titmouse, 4; Chickadee, 5; Golden-crowned Kinglet, 4. Total, 26 species, 297 individuals (excluding Crows). On December 24, a Brown Creeper was seen. On the same date, four Starlings were noted, and on December 27 one Cedar-bird.—William B. Evans.

Morristown, N. J.—Dec. 25; 9 to 11 A.M.; 3.30 to 4.30 P.M. Snow-storm began about 10 A.M., snowing hard in afternoon; wind east, moderate; temp., 26°. Kingfisher, 1; Downy Woodpecker, 6; Blue Jay, 1; Crow, 2; Starling, 12; Goldfinch, 3; Tree Sparrow, 40; Junco, 4; Song Sparrow, 3; Chickadee, 23; White-breasted Nuthatch, 2. Total, 11 species, 97 individuals. Birds are scarce here this winter, a great contrast to last year.—R. C. Caskey.

Newfield, N. J.—Dec. 25; 9.30 A.M. to 2.30 P.M. Snowing; ground bare at start; about two inches of snow at finish; wind east, light; temp., 32°. Blue Jay, 2; Crow, 6; Tree Sparrow, 12; Junco, about 120; Song Sparrow, 8; Swamp Sparrow, 1; Chickadee, 2. Total, 7 species, about 151 individuals.—Wm. W. Fair.

Passaic, N. J.—Dec. 25; 10 A.M. to 1 P.M. Cloudy; ground bare; wind northwest, light; temp., 28°. Downy Woodpecker, 1; Blue Jay, 3; Crow, 4; Starling, 21; Goldfinch, 2; Tree Sparrow, 155; Junco, 38; Song Sparrow, 6; Northern Shrike, 1. Total, 9 species, 232 individuals.—Leland Edwards, Robert Edwards, Gilbert H. Trafton, Edward Uehling, Donald Vail, Carl Vail, Guy Wellington.

Plainfield, N. J.—Dec. 25; 10.15 A.M. to 5.45 P.M. Ground bare at start; continuous snowfall beginning at 10.35 A.M.; temp., about 30°. Sharp-shinned Hawk, 1(adult); Hairy Woodpecker, 3; Downy Woodpecker, 4; Blue Jay, 9; Crow, 22; Fish Crow, 1; European Starling, 4 (flock); Meadowlark, 9 (flock); Goldfinch, 45 (flock); White-throated Sparrow, 4; Tree Sparrow, 85; Junco, 40; Song Sparrow, 11; Cardinal, 3; Carolina Wren, 1; White-breasted Nuthatch, 2; Tufted Titmouse, 1; Chickadee (*P. atricapillus*), 6; Wood Thrush, 1. Total, 19 species, 252 individuals. The Wood Thrush is the first winter record for this locality. The bird was seen excellently, and its call-note heard. It was not obviously injured in any way, but made only short, low flights.—W. De W. Miller.

Easton, Pa.—Dec. 25; 8.20 to 11 A.M. Cloudy; with a heavy snow-storm; ground rapidly being covered; wind southeast to northeast, brisk and driving; temp., 30° at start, 29° at return. Hairy Woodpecker, 1; Horned Lark, 50; Crow, 5; Tree Sparrow, 40; Junco, 50; Song Sparrow, 2; White-breasted Nuthatch, 2; Hermit Thrush, 1. Total, 8 species, about 151 individuals.—Edward J. F. Marx.

Germantown, Pa. (Lincoln Drive to Wissahickon Creek).—Dec. 26; 11 A.M. to 1 P.M. Sky heavily overcast, with snow-spitting clouds; about eighteen inches of snow on the

ground; high wind from the northwest; temp., 38°. Crow, 2; Song Sparrow, 1; Cardinal, 2; Carolina Wren, 1; Chickadee, 2. Total, 5 species, 8 individuals.—GEORGE LEAR, 2ND.

Radnor Township, Delaware County, Pa.—Dec. 24; 10.30 A.M. to 2.30 P.M. Partly cloudy; ground bare; wind high, northwest; temp., 32° at start. Hairy Woodpecker, 1; Downy Woodpecker, 6; Flicker, 1; Blue Jay, 1; Crow, about 400; Vesper Sparrow, 6 (flock); Tree Sparrow, 2; Junco, about 50; Song Sparrow, 15; Fox Sparrow, 1; Cardinal, 4; Winter Wren, 1; White-breasted Nuthatch, 3; Tufted Titmouse, 2. Total, 14 species, about 500 individuals.—ALFRED C. REDFIELD.

Springs, Somerset Co., Pa.—Dec. 24; 9 A.M. to 1.30 P.M. Cloudy at start, shortly clearing, then bright and sunny, four inches of snow; wind southwest to south, moderate; temp., 20° to 30°. Ruffed Grouse, 1; Hairy Woodpecker, 7; Downy Woodpecker, 5; Blue Jay, 1; Goldfinch, 2; Tree Sparrow, 10; Junco, 4; Cardinal,1 ;White-breasted Nuthatch, 7; Tufted Titmouse, 6; Chickadee, 10; Golden-crowned Kinglet, 2. Total, 12 species, 56 individuals.—ANSEL B. MILLER.

West Chester, Pa.—Dec. 25; 10 A.M. to 12.30 P.M., and 4 to 5 P.M. Light snow falling at 10 A.M., ground scarcely covered; six inches snow at 5 P.M.; moderate, northwest wind; temp., slightly below freezing. Red-tailed Hawk, 1; Sparrow Hawk, 1; Crow, 118; Vesper Sparrow (fully identified), 2; Tree Sparrow, 9; Junco, 27; Song Sparrow, 26; Cardinal, 9; Winter Wren, 1; Tufted Titmouse, 2.—Total, 10 species, 196 individuals.—C. E. EHINGER.

West Chester, Pa.—Dec. 25; 10.30 A.M. to 12.30 P.M. Very stormy; about two inches of snow has fallen; temp., 29° to 30°. Red-tailed Hawk, 1; Sparrow Hawk, 1; Downy Woodpecker, 1; Crow, 50; Tree Sparrow, 65; Junco, 200; Song Sparrow, 6; Cardinal, 2; Winter Wren, 1; Brown Creeper, 2; White-breasted Nuthatch, 1; Bluebird, 1. Total, 12 species, 331 individuals.—THOMAS H. JACKSON.

Cambridge, Md.—Dec. —; 12.45 to 2.45 P.M. Clear; ground bare; wind northwest, strong; temp., 36°. Turkey Buzzard, 18; Marsh Hawk, 2; Hawk (sp.?), 1; Bald Eagle, 1; Screech Owl, 1; Hairy Woodpecker, 1; Downy Woodpecker, 1; Meadowlark, 14; Crow, 27; Goldfinch, 15; Junco, 83; Song Sparrow, 2; Cardinal, 1; Mockingbird, 2; Bluebird, 9. Total, 15 species, 178 individuals.—RALPH W. JACKSON.

Princess Anne, Md.—Dec. 22; 12.30 to 4 P.M. Clear; ground bare; wind a northwest gale; temp., 34°. Killdeer, 2; Turkey Buzzard, 34; Marsh Hawk, 1; Red-shouldered Hawk, 1; Sparrow Hawk, 3; Hairy Woodpecker, 1; Downy Woodpecker, 2; Red-winged Blackbird, 40; Meadowlark, 29; Purple Grackle, 3; American Crow, 36; Goldfinch, 1; White-throated Sparrow, 4; Tree Sparrow, 3; Field Sparrow, 1; Junco, 133; Song Sparrow 8; Cardinal, 1; Myrtle Warbler, 2; Brown Creeper, 2; Brown-headed Nuthatch (*S. pusilla*), 20; Tufted Titmouse, 3; Carolina Chickadee, 4; Mockingbird, 1; Golden-crowned Kinglet, 5; Hermit Thrush, 6; Robin, 16; Bluebird, 9. Total, 28 species, 368 individuals. December 21, Kingfisher, 1; December 23, Wood Duck, 1; Red-tailed Hawk, 1.—NEWTON L. PARTRIDGE.

Bowers Hill, Norfolk Co., Va.—Dec. 26; 8.30 to 9.50 A.M. Partly cloudy; ground bare; very strong, west wind; temp., 39°. Turkey Vulture, 3; Black Vulture, 14; Sparrow Hawk, 1; Flicker, 1; Crow, 11; Purple Grackle, 1; Goldfinch, 3; Savannah Sparrow, 2; White-throated Sparrow, 4; Field Sparrow, 3; Junco, 22; Song Sparrow, 4; Swamp Sparrow, 6; Fox Sparrow, 8; Cardinal, 1; Myrtle Warbler, 3; Carolina Wren, 3; Brown-headed Nuthatch, 3; Robin, 2. Total, 19 species, 95 individuals.—M. A. LEWIS.

Daytona Beach, Fla.—Dec. 26; 12.30 to 3.30 P.M. Clear; ground bare; wind west to northwest, high; temp., 50°. Brown Pelican, 1; Killdeer, 8; Mourning Dove, 6; Ground Dove, 4; Turkey Vulture (estimated), 40; Black Vulture, 6; Osprey, 1; Belted Kingfisher, 2; Southern Hairy Woodpecker, 7; Red-bellied Woodpecker, 5; Phœbe, 2; Florida Crow, 3; Florida Blue Jay, 1; Chipping Sparrow, 15; Florida Cardinal, 6; Tree Swallow (estimated), 35; Loggerhead Shrike, 8; Myrtle Warbler, 10; Pine Warbler,

3; Palm Warbler, 20; Florida Yellow-throat, 1; Mockingbird, 11; Florida White-breasted Nuthatch, 8; Brown-headed Nuthatch, 13; Tufted Titmouse, 7; Carolina Chickadee, 13; Bluebird, 9. Total, 27 species, 245 individuals.—Sarah F. Ainsworth.

De Funiak Springs, Fla.—Dec. 23; 1.30 to 3.30 P.M. Clear; wind north, light; temp., about 50°. Pied-billed Grebe, 5; Killdeer, 2; Turkey Vulture, 1; Black Vulture, 3; Sparrow Hawk, 1; Red-cockaded Woodpecker, 4; Red-bellied Woodpecker, 2; Phœbe, 1; Florida Blue Jay, 3; Meadowlark, 10; Grasshopper, Sparrow 2; Myrtle Warbler, 1; Pine Warbler, 4; Palm Warbler, 3; Maryland Yellow-throat, 3; Pipit, 1; Mockingbird, 8; House Wren, 1; Brown-headed Nuthatch, 2; Ruby-crowned Kinglet, 1; Robin, 100; Bluebird, 9. Total, 22 species, 167 individuals.—G. Clyde Fisher.

Palma Sola, Fla.—Dec. 24; all day. Clear; wind east, to northwest, very light; temp., 65°. Loon, 1; Brown Pelican, 10; Red-breasted Merganser, 5; Great Blue Heron, 1; Spotted Sandpiper, 1; Killdeer, 2; Ruddy Turnstone, 7; Mourning Dove, 2; Ground Dove, 12; Turkey Vulture, 1; American Osprey, 1; Belted Kingfisher, 1; Red-bellied Woodpecker, 1; Phœbe, 3; Florida Blue Jay, 10; White-eyed Towhee, 1; Grasshopper Sparrow, 1; Cardinal, 2; Tree Swallow, 15; Loggerhead Shrike, 1; Palm Warbler, 10; Southern Yellow-throat, 2; Mockingbird, 4; Marian's Marsh Wren, 2; Blue-gray Gnatcatcher, 3; American Robin, 500. Total, 26 species, 621 individuals.—Carlos Earle.

Long Island, Ala. (on Sand Mountain).—Dec. 26; 6.45 A.M. to 4.30 P.M. Cloudy at start, clear later; very light snow; wind northwest; temp., about 20°. Bob-white, 10; Mourning Dove, 22; Turkey Vulture, 1; Hairy Woodpecker, 2; Downy Woodpecker, 3; Red-bellied Woodpecker, 1; Flicker 1; Crow, 3; Meadowlark, 20; Goldfinch, 2; Tree Sparrow, 2; Junco, 103; Song Sparrow, 2; Cardinal, 11; Carolina Wren, 6; White-breasted Nuthatch, 5; Tufted Titmouse, 4; Carolina Chickadee, 9; Golden-crowned Kinglet, 4; Hermit Thrush, 1; Bluebird, 3. On December 19 I saw one Ruffed Grouse and 5 Wild Turkeys. Total, 21 species, 218 individuals.—E. W. Graves.

Woodville, Miss.—Dec. 25; 10.15 A.M. to 12.50 P.M. Clear; wind strong from northwest; ground bare; temp., 35°. Bob-white, 1 covey (heard); Broad-winged Hawk, 2; Sparrow Hawk, 1; Hairy Woodpecker, 1; Downy Woodpecker, 2; Red-headed Woodpecker, (?); Red-bellied Woodpecker, 3; Flicker, 1; Blue Jay, 10; American Crow, 1; Phœbe, 2; Meadowlark, 40; Rusty Blackbird, 20; Goldfinch, 30; Savanna Sparrow, 4; White-throated Sparrow, 24; Towhee, 10; Cardinal, 6; Loggerhead Shrike, 1; Pine Warbler, 2; American Pipit, about 40; Mockingbird, 6; Brown Thrasher, 2; Carolina Wren, 2; Bewick's Wren, 3; House Wren, 2; Winter Wren, 1; Tufted Titmouse, 6; Golden-crowned Kinglet, 2; Ruby-crowned Kinglet, 6; Hermit Thrush, 1. Total, 31 species, about 240 individuals. Myrtle Warblers, usually plentiful, were not observed.—H. G. McGowan.

Knoxville, Tenn.—Dec. 26; 9 A.M. to 3 P.M. Light snow; wind west, light; temp., 26°. Sparrow Hawk, 1; Downy Woodpecker, 1; Phœbe, 1; Meadowlark, 7; Junco, countless; Fox Sparrow, 3; Towhee, 1; Cardinal, 2 (a pair); Mockingbird, 1; Wren, 2; Tufted Titmouse, 12; Chickadee, 1; Bluebird, 3. Total, 13 species, 35 individuals, besides Juncos.—Magnolia Woodward.

Tazewell, Tenn.—Dec. 25; 11 A.M. to 4.40 P.M. Snowing, ground covered; wind stiff, west to northwest; temp., at starting 34°, returning 22°. Bob-white, 7; Mourning Dove, 6; Red-tailed Hawk, 1; Sparrow Hawk, 1; Great Horned Owl, 1; Yellow-bellied Sapsucker, 1; Blue Jay, 4; Crow, 1; Meadowlark, 46; Field Sparrow, 61; Junco, 78; Song Sparrow, 36; Towhee, 1; Cardinal, 4; Myrtle Warbler, 1; Mockingbird, 3; Carolina Wren, 4; White-breasted Nuthatch, 1; Chickadee, 4; Golden-crowned Kinglet, 3; Total, 20 species, 264 individuals.—H. Y. Hughes.

Lexington, Ky., (in mountains forty-four miles east of).—Dec. 25; 8.50 A.M. to 4.30 P.M. Cloudy; one-half inch of snow; wind, south, light; temp., 22°. Mallard, 6; Black Duck, 1; Bob-white, 36; Mourning Dove, 4; Marsh Hawk, 1; Cooper's Hawk, 1; Red-

tailed Hawk, 1; Sparrow Hawk, 2; Barn Owl, 1; Great Horned Owl, 1; Downy Woodpecker, 1; Pileated Woodpecker, 1; Horned Lark, 82; Crow, 4; Meadowlark, 41; Bronzed Grackle, 1; Tree Sparrow, 4; Field Sparrow, 36; Junco, (estimated) 1,400; Song Sparrow, 29; Towhee, 6; Cardinal, 44; Mockingbird, 4; Carolina Wren, 2; Red-breasted Nuthatch, 1; Carolina Chickadee, 8; Bluebird, 8. Total, 27 species, about 1,726 individuals. —V. K. Dodge.

Richmond, Ind. (Earlham Cemetery).—Dec. 25; 7.30 to 9.30 A.M. Snow-storm; ground covered; wind brisk, northwest; temp., 22°. Blue Jay, 4; Crow, 2; Tree Sparrow, 6; Junco, 3; Cardinal, 2; Golden-crowned Kinglet, 1. Total, 6 species, 18 individuals.— M. Baxter, Mr. and Mrs. P. B. Coffin.

Webster, Ind.—Dec. 27; 1 to 2.30 P.M. Cloudy; wind southwest, one foot of snow on ground; temp., 17°. Mourning Dove, 2; Red-shouldered Hawk, 1; Sparrow Hawk, 1; Downy Woodpecker, 1; Red-headed Woodpecker, 2; Crow, 50; Goldfinch, 5; Tree Sparrow, 18; Junco, 45; Song Sparrow, 20; Cardinal, 2; Carolina Wren, 1; Tufted Titmouse, 6; Chickadee, 4. Total, 14 species, 159 individuals.—M. S. Markle and Loren C. Petry.

Cadiz, Ohio.—9.15 A.M. to 2.15 P.M. Cloudy and snowing, with two to four inches of snow on the ground; wind southwest, moderate; temp., 29° to 34°. Bob-white, 12, and tracks of 10; Red-tailed Hawk, 1; Hairy Woodpecker, 3; Downy Woodpecker, 5; Red-headed Woodpecker, 4; Red-bellied Woodpecker, 7; Flicker, 4; Prairie Horned Lark, (heard), 1; Crow, 2; Tree Sparrow, 65; Junco, 5; Song Sparrow, 4; Cardinal, 5; Carolina Wren, 4 (singing); White-breasted Nuthatch, 4; Tufted Titmouse, 8; Chickadee, 5; Robin, 2; Bluebird, 3. Total, 19 species, 144 individuals.—Harry B. McConnell.

Canton, Ohio.—Dec. 26; 9 A.M. to 3.30 P.M. Cloudy, except one hour interval of fair; eight inches of snow; wind northwest, rather strong; temp., 28°. Sharp-shinned Hawk, 1; Downy Woodpecker, 2; Blue Jay, 4; Goldfinch, 2; Tree Sparrow, 170; Song Sparrow, 8; Cardinal, 27 (20 in one flock); Carolina Wren, 2; White-breasted Nuthatch, 5; Tufted Titmouse, 12; Black-capped Chickadee, 2. Total, 11 species, 235 individuals. —Edward D. Kimes.

Canton, Ohio.—Dec. 25; 7 to 11.45 A.M. Cloudy; ending in severe snow-storm; wind southeast, light; temp., 25°. Hairy Woodpecker, 1; Flicker, 1; Blue Jay, 3; Tree Sparrow, 25; Song Sparrow, 4; Cardinal, 5; Northern Shrike, 1; White-breasted Nuthatch, 5; Tufted Titmouse, 1; Chickadee, 5. Total, 10 species, 51 individuals.—James A. Calhoun and Edward Jacot.

Delaware, Ohio.—Dec. 25; 9 to 11 A.M. Clear; ground covered with snow; temp., 31°. Hairy Woodpecker, 2; Downy Woodpecker, 2; Red-headed Woodpecker, 1; Red-bellied Woodpecker, 10; Flicker, 1; Blue Jay, 7; Tree Sparrow, 6; Junco, 8; Song Sparrow, 12; Cardinal, 8; Carolina Wren, 2; Winter Wren, 1; Brown Creeper, 1; White-breast-Nuthatch, 1; Tufted Titmouse, 4; Chickadee, 4; Golden-crowned Kinglet, 2. Total, 17 species, 72 individuals.—Harry and Lilian Hipple.

Gates Mills, Ohio.—Dec. 25; 10.30 A.M. to 12.30 P.M. Sky overcast, frequent snow flurries; about a foot of snow on ground; wind north, brisk; temp., 18°. Ruffed Grouse, 1; Red-tailed Hawk, 1; Hairy Woodpecker, 1; Downy Woodpecker, 12; Towhee, 30; Cardinal, 12; White-breasted Nuthatch, 8; Red-breasted Nuthatch, 2; Chickadee, 15. Total, 9 species, 82 individuals.—A. B. Williams, Jr.

Greenville, Ohio.—Dec. 25; 1.30 to 6.30 P.M. Cloudy; ground covered with eight or nine inches of snow; wind strong, northwest; accompanied with snow and sleet; temp., 18°. Rough-legged Hawk, 2; Flicker, 3; Horned Lark, 30; Crow, 5; Blue Jay, 1; Junco, 10; Tree Sparrow, 20; Chickadee, 12; White-breasted Nuthatch, 1. Total, 8 species, 84 individuals.—Harry Kirby.

Madison, Lake County, Ohio.—Dec. 26; Cloudy; snowing all day; about ten to twelve inches of snow on level and badly drifted, which made walking slow and tire-

some; brisk wind, shifting gradually from northwest to southwest; temp., 25° to 30°. Spent four hours in woods and fields near village. Red-tailed Hawk, 1; Downy Woodpecker, 10; Red-bellied Woodpecker, 2 (saw 3 a week ago); Flicker, 2 (saw 5 a week ago); Blue Jay, 2 (saw 3 a week ago); Goldfinch (in woods), 13 (flock); Tree Sparrow, 7 (flock); White-breasted Nuthatch, common in woods; Tufted Titmouse, 1; Chickadee, 2. Total, 10 species, about 60 individuals.—CARL C. LAWSON.

Salem, Ohio.—Dec. 25; 8 to 11.40 A.M. Seven and one-half miles walked. Mourning Dove, 1; Hairy Woodpecker, 2; Downy Woodpecker, 3; Red-bellied Woodpecker, 1; Flicker, 1; Blue Jay, 5; Red-winged Blackbird, 2; Tree Sparrow, 100; Song Sparrow, 4; Cardinal, 4; Carolina Wren, 1; White-breasted Nuthatch, 10; Tufted Titmouse, 10; Chickadee, 2; Robin, 1. Total, 15 species, 147 individuals.—H. W. WEISGERBER and GEO. S. COOPER.

Sidney, Ohio (woods along Great Miami river).—Dec. 24; 9 to 11 A.M. and 12.30 to 3 P.M. Cloudy; ground partly covered with snow; wind south, slight; temp., 32° to 40°. Red-tailed Hawk, 1; Sharp-shinned (?) Hawk, 1; Downy Woodpecker, 4; Flicker, 8; Blue Jay, 16; Crow, 44; Song Sparrow, 7; Tree Sparrow, 30; Junco, 29; Towhee, 6; Cardinal, 41; Carolina Wren, 2; White-breasted Nuthatch, 1; Tufted Titmouse, 1. Total, 14 species, 200 individuals.—FARIDA WILEY and MARY MCCRACKEN.

Youngstown, Ohio.—Dec. 25; 7 A.M. to 2.30 P.M. Cloudy; about three inches snow morning; began snowing about 10 A.M.; six inches snow on return; temp., 25° to 32°; distance walked, eighteen miles. Bob-white, 32; Ruffed Grouse, 2; Red-shouldered Hawk, 1; Sparrow Hawk, 1; Hairy Woodpecker, 4; Downy Woodpecker, 22; Red-headed Woodpecker, 1; Red-bellied Woodpecker, 12; Blue Jay, 30; Crow, 4; Goldfinch, 3; Tree Sparrow, 7; Junco, 100; Song Sparrow, 4; Cardinal, 1; Northern Shrike, 1; Carolina Wren, 1; Brown Creeper, 3; White-breasted Nuthatch, 33; Tufted Titmouse, 19; Black-capped Chickadee, 24; Golden-crowned Kinglet, 3; Robin, 5. Total, 23 species, 313 individuals.—GEO. L. FORDYCE and REV. S. F. WOOD.

Belle Isle (in Detroit river).—Dec. 25; 10.45 A.M. to 12.30 P.M. Heavy snow-storm during whole time out; five inches of snow on ground; wind northeast; temp., 28°; wind blowing about five miles an hour. Distance walked, three miles. Herring Gull, 5; Hairy Woodpecker, 1; Downy Woodpecker, 2; Crow, 7; Goldfinch, 5; White-breasted Nuthatch, 14; Tufted Titmouse, 1; Chickadee, 2. Total, 8 species, 37 individuals.—JEFFERSON BUTLER.

Benzonia, Benzie Co., Mich.—Dec. 25; 9 A.M. to 12 M. Cloudy; snow fifteen inches; wind northeast, light; temp., 29°. Herring Gull, 20; American Merganser, 15; Blue-winged Teal, 11; Bald Eagle, 2; Hairy Woodpecker, 2; Downy Woodpecker, 1; Blue Jay, 8; Chickadee, 1. Total, 8 species, 60 individuals.—ELIHU LINKLETTER.

Northern part Tompkins Township, Jackson Co., Mich.—Dec. 26; walked two miles; light snow falling; wind northwest; temp., 26°. Hairy Woodpecker, 1; Blue Jay, 2; White-breasted Nuthatch, 3; Chickadee, 56. Total, 4 species, 61 individuals.—CARRIE A. REYNOLDS.

New Buffalo, Mich.—Dec. 27; 7.30 to 10.30 A.M. Cloudy; snowing, fourteen inches of snow on the ground, drifted in most places; brisk, westerly wind; temp., 14° to 20°. Through woods and fields, and along the shore of Lake Michigan. Herring Gull, 8; American Merganser, 31; Canada Goose, 27; Ruffed Grouse, 1; Downy Woodpecker, 3; Blue Jay, 3; Crow, 6; Tree Sparrow, 4; Cardinal, 2. Total, 9 species, 85 individuals. Snow Buntings were seen here December 26.—F. A. PENNINGTON.

Baraboo, Wis.—Dec. 25; 9 A.M. to 3 P.M. Clear; with snow flurries; one foot of snow; wind northwest; temp., 20°. Red-headed Woodpecker, 1; Prairie Horned Lark, 5; Crow, 50; Blue Jay, 5; Redpoll, 15; Nuthatch, 2; Chickadee, 2. Total, 7 species, 80 individuals.—MINA A. KELSEY.

Baraboo, Wis.—Dec. 24; 8.30 A.M. to 12 M. Cloudy; with snow from 11 to 12

o'clock. Ground snow-covered; wind south, very light; temp., 20°. Bob-white, 15; Ruffed Grouse, 2; Sharp-shinned Hawk, 1; Hairy Woodpecker, 1; Downy Woodpecker, 1; Red-headed Woodpecker, (identity positive), 5; Horned Lark, 3; Prairie Horned Lark, 2; Blue Jay, 22; Crow, 17; Pine Siskin, 3; Tree Sparrow, about 60; White-breasted Nuthatch, 3; Chickadee, 2. Total, 14 species, 137 individuals.—Douglas Mabbott.

Elkhorn, Wis.—Dec. 26; 2.30 to 4.30 P.M. Cloudy; ground covered with twenty inches of snow; light wind, west to southwest; temp., 8°. Downy Woodpecker, 2; Crow, 86; Tree Sparrow, 1; Northern Shrike, 1; Total, 4 species, 90 individuals.—Sarah Francis, Helen Martin and Josephine Maloney.

Lodi, Wis.—Dec. 28; 9 A.M. to 1 P.M. Most at a lunch counter. Cloudy; no wind; eighteen inches of snow on ground; temp., zero to 10°. Hairy Woodpecker, 2; Downy Woodpecker, 3; Blue Jay, 5; White-breasted Nuthatch, 5; Chickadee, 6. Total, 5 species, 21 individuals.—Mrs. M. V. N. and Grace Richmond.

Milwaukee, Wis.—Dec. 27; 8.30 A.M. to 2.30 P.M. Clear; fourteen inches of snow; wind west, light; temp., 5°. Herring Gull, 34; American Merganser, 1; American Golden-eye, female 296, male, 46; Old Squaw, 1; Hairy Woodpecker, 1; Downy Woodpecker, 2; Crow, 1; Redpoll, (*A. linaria*), 1; Goldfinch, 63; Northern Shrike, 1. Total, 10 species, 447 individuals.—I. N. Mitchell and W. H. Cheever.

Mayville, Wis.—Dec. 25; 10 A.M. to 12 M. Partly cloudy; snow flurries; twelve to fifteen inches of snow on ground; wind northwest, light; temp., 15°. Blue Jay, 1; Chickadee, 1; White-breasted Nuthatch; 1; Downy Woodpecker, 1. Total, 4 species, 4 individuals.—E. A. Ross.

Menomonie, Wis.—Dec. 28. Cloudy; ground covered with snow, snowing a little; wind northwest. Blue Jay, Hairy Woodpecker, White-breasted Nuthatch, Chickadee. Total, 4 species, 9 individuals.—Mrs. C. T. Niles.

Superior, Wis.—Dec. 24; 3 to 5 P.M. Light snow falling; three inches of snow on ground; wind west; temp., 24°. Black-capped Chickadee, 5. Total, 1 species, 5 individuals.—A. L. Rhodes.

Wauwatosa, Wis.—Dec. 27; 9 A.M. to 5 P.M. Clear; deep snow; wind west, light; temp., 4° at starting, 20° on return. Herring Gull, 11; Downy Woodpecker, 3; Prairie Horned Lark, 4; Blue Jay, 18; Crow, 17; Goldfinch, 29; Pine Siskin, 21; Loggerhead Shrike, 1; White-breasted Nuthatch, 1; Chickadee, 1. Total, 10 species, 103 individuals.—Esther Tennyson.

Desplains River, from Franklin Park to Desplains, Ill.—Dec. 24; 6 A.M. to 3 P.M. Cloudy all morning, with heavy snow setting in at noon; two to six inches of snow on the ground; ice in river two and five-tenth inches thick; wind northwest to south, light; temp., 18° to 26°. Herring Gull, 3; Red-tailed Hawk, 1; Belted Kingfisher, 1; Hairy Woodpecker, 1; Downy Woodpecker, 2; Flicker, 1; Prairie Horned Lark, 4; Blue Jay, 37; Crow, 27; Redpoll, 18; Goldfinch, 2; Lapland Longspur, 22; Tree Sparrow, 55; Towhee, 1; Northern Shrike, 1; Brown Creeper, 2. Total, 16 species, 178 individuals.—Frank C. Gates.

Milford, Ill.—Dec. 26; 11 A.M. to 3 P.M. Clear; ten inches snow; wind west, light; temp., 5° to 15°. Herring Gull (?), 12; Bob-white, 11; Cooper's Hawk, 1; Red-tailed Hawk, 1; Barred Owl, 2; Hairy Woodpecker, 2; Downy Woodpecker, 8; Red-bellied Woodpecker, 2; Flicker, 6; Blue Jay, 7; Crow, 14; Purple Finch, 4; Redpoll, 20; American Goldfinch, 25; Tree Sparrow, 22; Slate-colored Junco, 20; Song Sparrow, 18; Cardinal, 7; Northern Shrike, 1; Carolina Wren, 1; Brown Creeper, 2; White-breasted Nuthatch, 5; Tufted Titmouse, 40; Black-capped Chickadee, 23. Total, 24 species, 254 individuals.—H. C. Henderson.

Moline, Ill. (Arsenal Island).—Dec. 24; 10 A.M. to 1 P.M. Snowing; ground covered with several inches of snow; wind light, southeast; temp., 32°. Bob-white, 75; Rough-legged Hawk, 2; Hairy Woodpecker, 1; Downy Woodpecker, 3; Red-bellied Woodpecker,

1; Blue Jay, 3; Crow, 8; Tree Sparrow, 1; Junco, 70; Cardinal, 4; Brown Creeper, 1; Nuthatch, 5; Tufted Titmouse, 1; Chickadee, 50.—Total, 14 species, 225 individuals.—Mrs. E. J. Sloan.

Rantoul, Ill.—8 A.M. to 12 M. Cloudy; snow-storm; ground covered with one foot of snow; wind northwest, very high; temp., 18°. Mourning Dove, 2; Cooper's Hawk, 1; Rough-legged Hawk, 2; Downy Woodpecker, 2; Flicker, 1; Blue Jay, 7; Crow, 6; White-crowned Sparrow, 3; Tree Sparrow, 50; Junco, 14; Song Sparrow, 2; Cardinal, 10. Total, 12 species, 100 individuals.—George E. Ekblaw and W. Elmer Ekblaw.

Sorento, Ill.—Dec. 26; 10 to 11 A.M. Clear; ground covered thickly with snow; wind west, light; temp., 16°. Bob-white, 12; Downy Woodpecker, 1; Blue Jay, 2; Crow, 1; White-crowned Sparrow, 2; Tree Sparrow, 4; Chipping Sparrow, 20; Junco, 200; Cardinal, 8; Mockingbird, 1. Total, 10 species, 251 individuals.—George E. Hill.

Minnehaha Falls to Fort Snelling and Mendota, Minn.—Dec. 25; 9 A.M. to 1 P.M. Cloudy and snowing; becoming clearer at noon; ten to fourteen inches of snow; strong, northwest wind; temp., 18°. Downy Woodpecker, 2; Crow, 1; Blue Jay, 5; White-breasted Nuthatch, 5; Chickadee, 7. Total, 5 species, 20 individuals.—Charles Phillips.

Redwing, Minn.—Dec. 24; 12.30 to 3.30 P.M. Snow flurries; wind light. Downy Woodpecker, 1; Hairy Woodpecker, 1; Blue Jay, 8; Nuthatch, 4; Chickadee, 3. Total, 5 species, 17 individuals.—Nels Borgen.

Fargo, N. D. (Narrow strip of woods along Red River).—Dec. 26; 10 A.M. to 12.30 P.M. Cloudy; several inches of snow; wind north, very light; temp., 10°. Blue Jay, 3; Brown Creeper, 4; White-breasted Nuthatch, 2. Total, 3 species, 9 individuals.—O. A. Stevens.

Sioux Falls, S. D.—Dec. 23; 8.30 A.M. to 5.30 P.M. Dark, cloudy day; ground all snow covered; light, southerly wind; temp., 13°. Prairie Chicken, 75; Ring-necked Pheasant, 1; Rough-legged Hawk, 1; Short-eared Owl, 7; Screech Owl, 1; Hairy Woodpecker, 1; Downy Woodpecker, 1; Flicker, 1; Crow, 7; Blue Jay, 2; Northern Shrike, 1; White-breasted Nuthatch, 1; Chickadee, 6. Total, 13 species, 105 individuals.—Adrian Larson.

Marion, Iowa.—Dec. 26; 10 A.M to 1 P.M. Cloudy; one foot of snow; light west wind; temp., 3°. Hairy Woodpecker, 2; Red-headed Woodpecker, 14; Blue Jay, 10; Crow, 4; White-breasted Nuthatch, 3. Total, 5 species, 33 individuals.—Herbert Carlton Granger.

Mt. Vernon, Ia.—Dec. 25; Calls at my lunch-counter from 10.35 to 11.35 A.M. Downy Woodpecker, 2 times; Blue Jay, 12 times; English Sparrow, 17 times, Junco, 69 times; Purple Finch, 43 times; White-breasted Nuthatch, 4 times; Chickadee, 216 times. Total, 7 species, 363 calls.—Nettie I. Fairbanks.

Sioux City, Iowa.—Dec. 27; 10 A.M. to 5 P.M. Mostly cloudy; six inches snow; wind west, light; temp., 15°. Snowy Owl, 1; Flicker, 6; Blue Jay, 2; Crow, 13; Tree Sparrow, 200; Slate-colored Junco, 7; Brown Creeper, 2; White-breasted Nuthatch, 1; Chickadee, 19. Total, 9 species, 251 individuals.—Guy C. Rich, E. E. Stacey, Walter Bennett, Manley B. Townsend, Members Ornithological section Academy Science and Letters.

Wall Lake, Iowa.—Dec. 25; 8 to 9.30 A.M.; 2 to 4.30 P.M. Clear; six inches snow; brisk, northwest wind; temp., 10°. Prairie Chicken, 4, (one frightened from burrow in snowbank); Short-eared Owl, 2 (perched in trees because all weeds and grass drifted full of snow); Screech Owl, 1; Hairy Woodpecker, 1; Flicker, 1; Blue Jay, 3; Longspur, 50 (species ?). Total, 7 species, 62 individuals.—John A. Spurrell.

Omaha, Neb.—Dec. 24; 2 to 5 P.M. Clear; about eighteen inches of snow; temp., about zero. Mallard, 175; Teal, 175; Coot, 130; Downy Woodpecker, 1; Crows in flocks; Junco, 5; Chickadee, 24. Total, 7 species.—Bourdette Kirkendall.

Wichita, Kan.—Dec. 23; 10 A.M. to 4 P.M. In an old orchard. Cloudy; ground partly covered with snow; wind south, light; temp., 34°. Light snow flurry. Hairy Woodpecker, 1; Downy Woodpecker, 1; Harris Sparrow, 12; Junco, 8; Cardinal, 6; Black-capped Chickadee, 4; Robin, 1. Total, 7 species, 33 individuals.—W. C. STAAT.

Concordia, Mo.—Dec. 25; 12.15 to 1.30 P.M. Clear; three inches of snow; wind light, west; temp., 18°. Marsh Hawk, 1; Rough-legged Hawk, 1; Screech Owl, 1; Downy Woodpecker, 8; Hairy Woodpecker, 1; Red-bellied Woodpecker, 2; Northern Flicker, 2; Blue Jay, 11; Crow, 5; Junco, 135; Tree Sparrow, 142; White-crowned Sparrow, 1; Smith's Longspur, 28; Cardinal, 20; Harris' Sparrow, 5; Fox Sparrow, 1; Mockingbird, 2; Chickadee, 7; Tufted Titmouse, 2. Total, 19 species, 376 individuals.—DR. FERDINAND SCHREIMAN.

Kansas City, Mo.—Dec. 25; 11.30 A.M. to 2.30 P.M. Clear; four inches snow; wind northwest; temp., 16°. Screech Owl, 1; Blue Jay, 2; Crow, 1; Tree Sparrow, 100; Junco, 200; Cardinal, 11; Northern Shrike, 1; Tufted Titmouse, 10; Black-capped Chickadee, 12; Mockingbird, 1. Total, 10 species, 339 individuals.—H. R. WALMSLEY.

Kansas City, Mo.—Dec. 25; 8.20 to 11.30 A.M. Clear; five inches of snow on ground; wind north, strong; temp., 16°. Downy Woodpecker, 1; Hairy Woodpecker, 1; Red-headed Woodpecker, 2; Red-bellied Woodpecker, 3; Flicker, 3; Blue Jay, 12; Crow, 1; Purple Finch, 4; Goldfinch, 7; Tree Sparrow, 55; Junco, 40; Harris' Sparrow, 7; Cardinal, 21; Chickadee, 3; Tufted Titmouse, 2; Mockingbird, 5; Total, 16 species, 167 individuals. Juncos and Tree Sparrows fewer than usual.—JOHN E. CAMERON.

St. Louis, Mo. (**Creve Cœur Lake**).— Dec. 28; 9.30 A.M. to 3 P.M. Snow flurries; ground covered with snow; wind northwest; temp., 24°. Downy Woodpecker, 6; Red-headed Woodpecker, 4; Red-bellied Woodpecker, 2; Flicker, 9; Blue Jay, 4; Red-winged Blackbirds, 20 (flock); Crow, 3; Tree Sparrow, 50; Junco, 40; Song Sparrow, 12; Cardinal, 14; Myrtle Warbler, 1; Carolina Wren, 2; Tufted Titmouse, 24; Chickadee, 20. Total, 15 species, 211 individuals.—EDWARD H. CHRISTIE.

Boulder, Col. (**Creek bottom**).—Dec. 24; 2 to 5 P.M. Clear; ground covered with six inches of snow; wind west, brisk; temp., about 25°. Mallard Duck, 4; Virginia Rail, 1; Wilson Snipe, 2; Rough-legged Hawk, 1; Red-shafted Flicker, 2; Desert Horned Lark, 46; Magpie, 27; Western Tree Sparrow, 12; Mountain Song Sparrow, 6; Dipper, 1; Long-tailed Chickadee, 6; Mountain Chickadee, 2. Total, 12 species, 110 individuals.—N. DEW. BETTS.

Tucson, Ariz.—Dec. 25; 2.15 to 4 P.M. One mile in Santa Cruz Valley, partly within city limits. Clear; calm; temp., 69°. Inca Dove, 3; Sparrow Hawk, 1; Soy's Flycatcher, 1; White-necked Raven, 1; Arizona Cardinal, 3; White-crowned and Intermediate Sparrows and Grass Finches everywhere in flocks; Spurred Towhee, 2; Abert's Towhee, 5; Shrike, 3; Ruby-crowned Kinglet, 9; Azure Bluebird, 5. Total, 14 species,—HERBERT BROWN.

Buena Park, Cal.—Dec. 25; 8.15 to 10.25 A.M. Sky overcast with cirrus clouds; breeze from east; temp., 46°. Pied-billed Grebe, 1; Green-winged Teal, 1; American Bittern, 2; American Coot, 1; Killdeer, 5; Valley Quail, 1; Turkey Vulture, 5; Marsh Hawk, 1; Burrowing Owl, 1; Anna's Hummingbird, 1; Say's Phœbe, 3; Black Phœbe, 6; Mexican Horned Lark, 90; San Diego Redwing, 795; Western Meadowlark, 45; Brewer's Blackbird, 306; California Linnet, 107; Lawrence's Goldfinch, 26; White-crowned Sparrow, 43; Song Sparrow, 22; Lazuli Bunting, 3; California Shrike, 4; Audubon's Warbler, 5; Pacific Yellow-throat, 1; Tule Wren, 3. Total, 25 species, 1,478 individuals.—JOHN MCB. ROBERTSON.

Redlands, Cal.—Dec. 26; 7 to 11 A.M. and 3 to 5 P.M. Clear; wind south in the morning, northwest in the afternoon; temp., 36° to 53°. Valley Partridge, 16; Turkey Vulture, 1; Sharp-shinned Hawk, 1; Road-runner, 3; Red-shafted Flicker, 5; Anna's Hummingbird, 9; Say's Phœbe, 5; Black Phœbe, 2; California Horned Lark, (large flocks), about 200; Western Meadowlark, 35; California Jay, 1; Brewer's Blackbird, 5; House

Finch, (very large flocks), about 250; Willow Goldfinch, 8; Arkansas Goldfinch, about 100; Western (?) Vesper Sparrow, 11; Western Savanna Sparrow, about 125; Gambel's Sparrow (large flock), about 200; Golden-crowned Sparrow, about 125; Western Chipping (?) Sparrow, 3; Thurber's Junco, 18; Rufous-crowned Sparrow, 4; San Diego Song Sparrow, 7; Spurred Towhee, 2; California Towhee, about 60; Cedar Waxwing, 1; Audubon Warbler, 25; Western Mockingbird, 8; Pasadena Thrasher, 4; Cactus Wren, 9; Southwest Bewick Wren, 6; Pallid Wren-tit, 7; California Bush-tit, about 30; Ruby-crowned Kinglet, 4; Western Gnatcatcher, 6; Western Robin, 8; Western Bluebird, 7; Mountain Bluebird, 2.—Total, 38 species, 1,313 individuals.—Allyn G. Smith.

Bryn Mawr, Wash. (Lake Washington and two miles west).—Dec. 26; 11.30 A.M. to 1.30 P.M. Clear; about one inch of snow; wind north, strong; temp., about 33°. Northwestern Flicker, 1; Steller's Jay, 3; Oregon Junco, 30; Rusty Song Sparrow, 8; Oregon Towhee, 3; Seattle Wren, 7; Western Winter Wren, 2; Oregon Chickadee, 10; Chestnut-backed Chickadee, 2; Western Golden-crowned Kinglet, 1; Ruby-crowned Kinglet, 1; Total, 11 species; 68 individuals.—Samuel Kenney.

Okanagan Landing, B. C.—Dec. 26; 8.30 A.M. to 4 P.M. Fine; about two inches snow; no wind; temp., 8 A.M. 16°. Horned Grebe, 1; Herring Gull, 4; Greater Scaup, 175; Lesser Scaup, 9; Redhead, 100; Bufflehead, 8; American Widgeon, 7; Canadian Ruffed Grouse, 2; Pileated Woodpecker, 1; Cabanis' Woodpecker, 1; Red-shafted Flicker, 7; Magpie, 6; Clarke's Nutcracker, 3; American Crossbill, 13; Shufeldt's Junco, 9; Rusty Song Sparrow, 4; Bohemian Waxwing, 23; Long-tailed Chickadee, 20; Gambel's Chickadee, 20; Rocky Mountain Brown Creeper, 1; Red-breasted Nuthatch, 7; Slender-billed Nuthatch, 5; Pigmy Nuthatch, 2. Total, 23 species, 468 individuals.—Allan Brooks.

Edmonton, Alberta.—Dec. 19; 10 A.M. to 3 P.M. Cloudy; snow flurries, ten inches of snow; wind northwest, brisk; temp., 30°. Arctic Three-toed Woodpecker, 1; Pine Grosbeak, 1; Snow Bunting, 150; Chickadee, 3. Total, 4 species, 155 individuals.—Glenn Chadwick and Sidney S. S. Stansell.

Cambridge, England.—Dec. 27; 10 A.M. to 3 P.M. Weather mild and cloudy; sunshine for two or three hours in midday; cloudy and rain later; wind light, southwest, west; temp., 50°. Song Thrush, 16; Mistle Thrush, 7; Fieldfare, 400; Blackbird, 37; Robin, 9 (singing); Wren, (singing), 4; Blue Titmouse, 7; Great Titmouse, 4; Hedge Sparrow, 15; Skylark, 350 (singing); Linnet, 150; Bullfinch, 1; Chaffinch, 30; Greenfinch, 40; Tree Sparrow, 3; House Sparrow, 1,500; Yellow Bunting, 65; Corn Bunting, 1; Rook, 300; Starling, 700; Crow, 1; Pheasant, 2; Common Partridge, 35; Wood Pigeon, 150; Kestrel, 1. Total, 25 species, 3,818 individuals.—Wm. Farren.

Winchester to Kingsworthy, Hampshire, England.—Dec. 25; 3 to 4.30 P.M. Fine and mild. Mistle Thrush, 10; Song Thrush, 50; Redwing, 6; Fieldfare, 10; Blackbird, 25; Robin, 6; Stonechat, 2; Hedge Sparrow, 6; Wren, 12; Chaffinch, 30; Greenfinch, 3; Bullfinch, 1; House Sparrow, 30; Yellow Bunting, 1; Blue Titmouse, 4; Skylark, 70; Meadow Pipit, 15; Grey Wagtail, 1; Pied Wagtail, 2; Kingfisher, 2; Starling, 50; Rook, 40; Jackdaw, 12; Wood Pigeon, 3; Moorhen, 2; Lapwing, 110; Kestrel, 1; Jack Snipe, 1; Common Gull, 2; Black-headed Gull, 35; Little Grebe, 6. Total, 31 species, 548 individuals.—H. F. Witherby.

Winchester, Hampshire, England.—Dec. 26; 11.30 A.M. to 1 P.M. and 2.30 to 4 P.M. Fine and very mild. Mistle Thrush, 12; Song Thrush, 27; Redwing, 10; Fieldfare, 2; Blackbird, 14; Stonechat, 1; Robin, 6; Hedge Sparrow, 6; Wren, 8; Chaffinch, 20; Greenfinch, 100; Bullfinch, 10; House Sparrow, 110; Linnet, 170; Yellow Bunting, 1; Great Titmouse, 2; Blue Titmouse, 2; Skylark, 75; Meadow Pipit, 7; Pied Wagtail, 3; Grey Wagtail, 3; Starling, 45; Rook, 50; Jackdaw, 4; Common Partridge, 7; Moorhen, 1; Black-headed Gull, 155. Total, 27 species, 851 individuals.—H. F. Witherby.

Book News and Reviews

Directory to the Birds of Eastern North America. Illustrated with many woodcuts and twenty plates drawn and engraved by the author. By Charles J. Maynard, West Newton, Mass. C. J. Maynard. 1907. 12mo. 20 plates, many text-cuts.

With a wide experience in the field, as well as with pen, pencil and brush, and an independent attitude of mind which does not bow to conventions, the originality which usually marks Mr. Maynard's contributions to ornithology is particularly evident in the present volume, a copy of which we have but lately received for review.

The classification adopted is in the main that of the A. O. U., but no hesitation is shown in departing from that standard; the Limicolæ, for example, being placed directly after the Rhynchopidæ, while the Titmice follow the Jays. There are also numerous departures from the A. O. U. 'Check-List,' in the order of species and in the use of generic and specific names. In the Warblers, no less than fourteen new generic names are proposed; but none of them, we believe, has been accepted by the Union.

The text includes matter under Orders, Families, Genera, Species and Subspecies, and contains much general and specific information presented in a condensed, direct form. In a large measure it is based on the author's own observations, and is therefore of more importance to the ornithologist than the work of a compiler.

Mr. Maynard speaks as one in authority, but we notice a few slips. The cut on page 8, for example, fails to show the reverse imbrication of the median and greater wing-coverts. Again, the keel on the White Pelican's bill is not retained until autumn, but is usually shed before the eggs hatch, while the young Flamingo is not helpless, but can run shortly after birth. It would be well, also, to change "Phœbe," on page 196, to Pewee, in making the comparison of the Chickadee's whistle. The reported breeding of the Man-o'War Bird and Flamingo in Florida, and the nesting of Carolina Paroquets "in communities," coming from Mr. Maynard, demand consideration, and we trust that the details on which these records are doubtless based will be published.—F. M. C.

The Birds of New Jersey: Their Nests and Eggs. By Witmer Stone. Annual report of the New Jersey State Museum for 1908. Trenton, N. J. 1909. 8vo. Part II, pages 11 to 347; plates 1 to 84.

It is not a little remarkable that a state as small as New Jersey, with two of the largest and oldest cities in the country on its borders, has heretofore had no authoritative work on its birds, with the exception of two publications including eastern Pennsylvania as well. An exception might also be made of 'The Birds of New Jersey,' published by the Fish and Game Commission, in 1896; but this work, however reliable and useful, is wholly a compilation, with the species arranged alphabetically under their common names. The annotated list issued by the state in 1868, and its successor of 1890, are both wholly untrustworthy. There have, however, been several excellent local lists published, notably those of Morris county and Princeton, and one including in its scope the area within fifty miles of New York City.

The present work is much more than a mere faunal list. To use the author's words: "The aim has been to present keys and descriptions that will enable any one to identify birds that he may see, to give a brief sketch of the more characteristic habits of the common species, and at the same time to include such facts and records on the distribution of all the species as will make the report a thoroughly up-to-date list of the birds of the state." That the author's aim has been achieved, there can be no doubt. The biographical paragraphs are to the point,

and the plates, the majority copied from Audubon and Wilson, depicting 102 species, should aid in identification. The comprehensive bibliography is also an important feature.

Two short introductory chapters treat of 'The Destruction and Protection of our Birds,' and 'Distribution and Migration.' In the latter, the species are divided into Residents, Summer Residents, Winter Visitants, Transient Visitants and Irregular or Accidental Visitants. The last miscellaneous assemblage is subdivided into five groups. While the difficulty of satisfactorily arranging these irregular visitants is acknowledged, we cannot help thinking that the line between Winter Visitants and Irregular Visitants from the north in Winter has not been drawn at the best point. The Redpoll, Lapland Longspur and Snow Bunting seem better placed with the Pine Grosbeak and White-winged Crossbill than with such unfailingly regular winter residents as the Tree Sparrow and the Junco. And we should scarcely expect to find the Pileated Woodpecker and Cerulean Warbler among "Irregular Visitants from the South in Summer."

The annotations are, in the main, adequate and satisfactory; but, in a few cases, the abundance is stated in a general way, that by no means applies to the state as a whole. For instance, among the Hawks, the Red-tail is given as a "common resident," though there are considerable areas from which it is almost or wholly absent in the breeding-season. Again, the Broad-winged Hawk is said to be a less common breeder than the Red-shouldered, while, as a matter of fact, it occupies certain sections to the exclusion of its congener, the habitats of the two being complementary. By failure to secure all available records, many of the scarcer transients are made to appear rarer than they actually are. Thus, but one spring record is given for Lincoln's Sparrow, while, some years ago, the writer observed as many as seven or eight during one spring migration.

There is a pleasing freedom from typographical errors, and the only slips observed in the scientific names are the inadvertent use of *Tachybaptus* for the Pied-billed Grebe; of *colchicus*, instead of *torquatus*, as the specific name of the Ring-necked Pheasant, and of *leucobronchialis* for *Vermivora lawrencei*. The proper names of Krom and Zerega are misspelled throughout the work.

In regard to the faunal relationships of New Jersey, we find that the greater part of the state belongs to the Carolinian zone, the hilly northern portion being mainly Alleghanian. There is, at most, only a feeble indication of a Canadian element in the presence of a few Brown Creepers, Solitary Vireos and Canadian and Black-throated Blue Warblers as breeders in the most elevated portions, but none of these are typically Canadian species.

The total number of species and subspecies accredited to the state, including accidental visitants, extinct species, and a few of somewhat doubtful occurrence, is 356. Of these, 137 are breeders. Of species extinct within the state, there are five given in the introduction, and to these should be added the Labrador Duck. A number of others that formerly nested in numbers along the coast might properly have been placed in this category, since they now occur only as the rarest stragglers. Among these are the Avocet, Stilt, Wilson's Plover, Oystercatcher, Gull-billed Tern, Least Tern and Black Skimmer. Indeed of the once varied and abundant summer bird-life of the New Jersey beaches and marshes, the Clapper Rails, a few Common Terns, and two colonies of Laughing Gulls, are about all that remain.

Among the few song birds, once more or less abundant but now practically unknown in the state, the Dickcissel, Mockingbird and Summer Tanager are the best, if not the only examples.—W. DEW. M.

REPORT OF THE CHIEF OF THE BUREAU OF BIOLOGICAL SURVEY FOR 1909. By C. Hart Merriam. From the Annual Reports of the Department of Agriculture: Washington, 1909, pp. 1–24.

The increase in scope and importance of the work of the Bureau of Biological

Survey is demonstrated in an impressive way by this brief review of its labors during the past year.

The division of Economic Mammalogy and Orthology has completed bulletins on the house rat, ground squirrels, wolf and coyote bounties, mammals of the arid interior, muskrats, deer farming and California birds in relation to agriculture; and it has in preparation others on Woodpeckers, Flycatchers, shore birds, and the food of wild Ducks.

Special field investigations were made among the field mice of Nevada (where the efforts of a Survey, seconded by those of Hawks, Owls, Gulls and coyotes has reduced the number of field mice from some 12,000 an acre to five or six per acre), and in relation to fencing sheep from wolves and coyotes, on ditch-boring mammals, the depredations by kangaroo rats, and moles, the relation of birds to the boll weevil, the English Sparrow in southern California, on birds in relation to wheat aphids and on the diseases of wild Ducks.

In the Division of Geographic Distribution field work was carried on in New Mexico, Utah, Georgia, Alabama, Mississippi, Tennessee and South Carolina.

The Division of Game Protection has rendered a most effective service through the distribution of its bulletins on game protection and propagation, and its work in connection with Bird Reservations, now 51 in number, and its supervision of the importation of foreign mammals and birds.

The 'Outline of Work for 1910' shows no indication of decrease in the activity of this Bureau which indeed is rendering an increasingly effective service to the public. —F. M. C.

The Ornithological Magazines

The Auk.—The January number opens with an illustrated paper by Dr. C. W. Townsend and Mr. A. C. Bent, entitled 'Additional Notes on the Birds of Labrador.' Forty species of water birds and fifty-three of land birds are listed,—a goodly number for a desolate region where birds are scarce. In this connection it is of interest to read, on another page, of 'Audubon's Labrador Trip of 1833,' by Mr. R. Deane, who has pleasantly brought together a recent letter from Dr. Wm. Ingalls, the only surviving member of the party, and one from Audubon himself, written while in Labrador.

In contrast to the bleak Labrador country, we read of 'One Hundred Breeding Birds of an Illinois Ten-mile Radius,' which Mr. I. E. Hess records in Champaign county. Mr. W. F. Henninger has notes on a few rare birds of Ohio, illustrating his article with photographs of the King Rail; while some winter birds of Wayne county, Michigan, are recorded by Mr. J. C. Wood, and others, of Ottawa, Canada, by Mr. G. Eifrig.

Several photographs of the nests of the Arizona Hooded Oriole accompany an article on 'The Palm-Leaf Oriole,' by Mrs. F. M. Bailey. The birds frequent, it is true, the fan palms so extensively planted for ornament along the streets of southern California towns; but in vernacular names the utmost conservatism should prevail, and it is to be observed that on one of the photos appears "Palm-Leaf" and on the other "Hooded," neither of which is the distinctive "Arizona," by which name this race has always been known. The most that can be asked of a vernacular name is that it be *distinctive*,— its appropriateness is quite another matter.

Dr. L. B. Bishop describes 'Two New Subspecies of North American Birds,' a Long-billed Curlew (*Numenius americanus parvus*) and a Cowbird (*Molothrus ater dwighti*), both races being carved from material representing the extreme northern limits of familiar species, although the Curlew is nearly extinct in the East.

Messrs. A. H. Wright and A. A. Allen submit data on 'The Increase of Austral Birds at Ithaca' (N. Y.). It is well to remember that the apparent increase of birds of a given area is frequently the result of more careful observations, sometimes combined with lucky discoveries, and nothing is more difficult than securing a bird census that is worth while.

Last, but not least in historical importance, is Mr. J. H. Sage's annual report on the 'Twenty-seventh Stated Meeting of the American Ornithologists' Union.' There are also many notes and reviews of importance.—J. D., Jr.

The Condor.—Nine articles, all but two brief, and five of them illustrated, make up the varied contents of the November number of 'The Condor.' In 'Some Bird Accidents,' Finley gives an account of half a dozen fatalities that have come under his notice, and references to several described by other observers. Willet's 'Bird Notes from the Coast of San Luis Obispo County' (Cal.), contains some interesting facts regarding the breeding of sea birds. In speaking of the Brandt Cormorants (*Phalacrocorox penicillatus*) he says: "We concluded that the moss composing the lining of the nests is all brought up from deep water, as the birds could be seen energetically diving for it in the deeper water, although it was plentiful in the shallows and on the rocks." Dixon's 'Life History of the Northern Bald Eagle,' the principal paper in this number, is illustrated with two photographs of nests and two of young birds found on Hawkins and Admiralty Islands, Alaska. The Hawkins Island nest measured 8 by 10 feet outside, with a depth of 4 feet and a nest cavity 12 inches across and 4 inches deep. Under the title of 'The Flammulated Screech Owl,' Willard gives an account of two nests found in the Huachuca Mountains, Ariz., in May, 1909, and incidentally calls attention to the fact that the iris in this species is dark chocolate-brown, instead of yellow, as in other Owls.

In 'Further Notes from San Clemente Island,' Linton adds twenty-six species to his list published in March, 1908; and in 'A Collection of Birds from Forty-mile, Yukon Territory,' Grinnell contributes brief notes on fifty-nine species. Ray gives a short account of 'Some Sierran Nests of the Brewer Blackbird,' illustrated by two photographs of a nest built on a pile in a wharf, at Bijou, on Lake Tahoe. 'The Nesting of the Broad-tailed Hummingbird' on Squaw Creek, Gallatin county, Montana, is briefly described by Saunders from a nest containing two well-incubated eggs, found June 28, 1909. Colorado ornithologists will be interested in Burnett's account of the life and work of 'An Early Colorado Ornithologist, William G. Smith,' 1841–1900. The index with which the number concludes shows that volume XI, for 1909, contains 224 pages.—T. S. P.

Book News

We have received from the Delaware Valley Ornithological Club, with a request that it be *not* reviewed, a 'Souvenir' booklet commemorating the Club's twentieth birthday. While this attractive and exceptionally interesting publication invites a more extended notice than is usually accorded more weighty documents, we resist the temptation to violate the confidence of the Club. But at least we may say that the contents of this pamphlet gives evidence of a good fellowship, which, in connection with the fact that it had the right kind of Stone in its foundation, goes far toward explaining the success of the D. V. O. C.

In his 'Analysis of Nebraska's Bird Fauna,' (Proc. Neb. Orn. Union, IV, 2, pp. 25–55, ills. i–VI), Dr. R. H. Wolcott shows that the state may be divided into five natural regions; their names, with the number of summer resident birds found in each are as follows: The Missouri Region, 144; Prairie Region, 132; Sand-Hill Region, 99; Plains Region, 104; Pine Ridge Region, 67. The paper is well illustrated by a colored map, showing the areas of each region and by photographs of characteristic scenery.

North American Fauna, No. 30, by Wilfred H. Osgood, contains lists of the 'Birds of East Central Alaska' (pp. 33–44), of the 'Birds of the Ogilvie Range' (pp. 58–65), and of the 'Birds of the Macmillan region' (pp. 84–92). Aside from remarks on distribution, the annotations contain much of general interest in regard to the habits of the species treated.

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Bird-Lore's Motto:
A Bird in the Bush is Worth Two in the Hand

BOWDLER SHARPE, one of the leading ornithologists of the world, died at his home in Chiswick, England, on December 25, 1909. He leaves as an enduring monument the collection of birds in the British Museum, which grew to unrivaled proportions under his charge, and the great 'Catalogue' of the birds of the world, unquestionably the most valuable contribution ever made to systematic ornithology.

WITH this number the connection between the Macmillan Company and BIRD-LORE ceases, and the magazine will hereafter be published by D. Appleton & Co. It will still be printed by the J. Horace McFarland Company, to whose sympathetic coöperation it owes so much, and, as before, will be mailed from their office in Harrisburg, where all notices of change of address, removals, etc., should be sent, addressed simply BIRD-LORE, Harrisburg, Pa.

ABOUT the middle of February, the editor, accompanied by Mr. Louis Agassiz Fuertes, expects to sail for Mexico, to gather data and material for a Habitat Group representing the bird-life of the tropical portions of Vera Cruz. The painted background, for which Mr. Fuertes will make studies, is planned to show Mt. Orizaba with its snow-crown; and to explain the significance of perpetual summer and perpetual snow in the same scene will be one of the objects of the group. Further work in Mexico will doubtless extend the trip until late in April, and during this period the editor begs the indulgence of his correspondents.

THE Twenty-seventh Annual Congress of the American Ornithologists' Union, which was held at the American Museum of Natural History on December 7-9, 1909, was more largely attended than any of its predecessors, over 130 members registering.

A. C. Bent was elected a Fellow, and Allan Brooks, Bradshaw H. Swales, Harry S. Swarth and Percy Taverner, were elected Members; there were also 121 new Associate Members elected. The program contained a number of papers of much scientific interest, and various social functions offered opportunity for that personal intercourse which constitutes so pleasant and so important a part of gatherings of this kind.

AFTER sending the manuscript of the Christmas Bird Census to the printer, we received three lists from England; two from H. F. Witherby, to both of which, breaking our rule, we gladly give space, and one from Wm. Farren. These lists illustrate admirably the educational value of records of this kind, for they are directly comparable with lists which we may make here under similar conditions. They show, too, in the most interesting way, the influence of the mild winter climate of southern England on the bird-life of that season.

The most abundant species observed are doubtless permanently resident as individuals in England, and, aside from this evidence of their adaptability to seasonal changes, their abundance is probably in no small measure to be attributed to their escape from the perils of migration. It is to the great numbers of these birds, which enter into the bird-life of every day, and, indeed, of every outing in England, that we may attribute, in part at least, the fact that one sees so many more individual birds in England than in this country.

The Audubon Societies

SCHOOL DEPARTMENT

Edited by MABEL OSGOOD WRIGHT

Address all communications to the Editor of the School Department, National Association of Audubon Societies, 141 Broadway, New York City

FEBRUARY—PREPARATION MONTH

THOSE who have made a practice of feeding birds will, of course, need no urging; but it is not too late to say a word to those who have not. Many birds that have gleaned a fair living during the first two months of winter are starved out in February and March, when sleet-storms have laid low the stalks of weed-seeds, and no frozen berries and apples remain.

Along with this comes the making and placing of bird-houses; as those intended for either Bluebirds, Chickadees or Nuthatches should be ready and "weathering" early in March, and the earlier the better. It is also the last chance to clean the twigs from old houses. If they have been made with removable tops or sides, the task is easy; if not, patience and a shoe-buttoner will generally conquer the mass of sticks, feathers and straws.

This cleaning process I should confine strictly to manufactured homes; the holes of Flickers and Bluebirds in old trees and posts, were better left alone, as I have seen time-honored haunts ruined by careless working at the entrance that broke down the hole. Bird-houses can be made of pretty much anything, the only qualifications being the proportion to the bird and the size and position of entrance.

The man who made two holes in his barn-door—a little one for the kitten and a big one for the cat—has always been held up to ridicule; but, if he had been constructing a bird-house, his method would have been quite right. A small bird, like Jenny Wren, prefers a small entrance (the size of a quarter) to her house, and will frequently refuse a box with a two-inch opening. Through the smaller opening nothing larger than a field-mouse can enter, and the mischievous red squirrel, English Sparrow and Starling will be kept out.

In this connection, let me advise the use of a bit of tin on the inside front of small bird-houses, with an aperture of the same size as the entrance; this will discourage the red squirrel in his efforts to enlarge the doorway.

Use anything you can lay hands upon for your houses, but if you are fortunate enough to have a supply of old shingles or weathered boards, so much the better; and do not forget one point: It is the *bird* who is to live in the house, not yourself, and, to some birds, fancy scrolls; saw trimmings, steeples and brightly contrasting paints will act as alarm signals rather than enticements. Moreover, except in the case of the formal Martin Hotel, set on a pole in the open, these toy doll-

houses are out of keeping with the spirit of Birdland and its hard-and-fast law of color protection.

There are many good patterns for bird-houses, but none are better than those figured in Mr. E. H. Forbush's 'Useful Birds and Their Protection,' and copied in 'Gray Lady and the Birds.' Stick to natural bark, gray wood, and adaptation of tree forms, being careful never to make draughty houses by *putting doors opposite to each other*. In one way birds outsense many human beings; things of air and light as they are, they refuse to sleep or rear their young in a draught! On the other hand, see to it that your houses are not set so that they will either face the northeast or lie in the eye of the sun during the hottest part of the day. —M. O. W.

HONK! HONK!

Oh, the high, sweet sound,
When the snow is barely vanished underground;
Ere the first green thing
In the woods has answered to the kiss of Spring!
Oh, that call afar,
Coming strangely into heaven (as eve's first star)!
Not to listening ears
Comes that call: From nowhere suddenly it nears,
Through the vast sky-room
Drives before it every shred of winter gloom.

Oh, the high sweet sound
From the brave wild flock, ever northward bound!
Now, I pray no scath
From the fowler shall o'ertake them on their path,
While their moving wedge
Dwindling, sinks beneath the dim horizon's edge.
Fain I'd see, at last,
Where they rest, and nest, their long journey past;
In what sedgy spot,
Loved of sunshine (happily by man forgot).
Oh, the high, sweet sound
From the glad, wild rovers, when that spot they've found!

—*Edith M. Thomas.*

THE ORCHARD ORIOLE

By WITMER STONE

The National Association of Audubon Societies
EDUCATIONAL LEAFLET NO. 42

There are several bird voices that in my mind are especially associated with the apple orchard,—the mournful cooing of the Dove, the monotonous call of the Wood Pewee, and the lively chant of the Orchard Oriole.

The last is a song that at once attracts our attention,—a rapid series of clear notes, fairly tumbling over one another, as they suddenly break upon the ear, and stopping abruptly before we have located the performer.

Song

It is a song that recalls, in some respects, that of the Warbling Vireo, while the rapid sequence of notes reminds one of the rollicking medley of the Bobolink. Compared with the song of the Baltimore Oriole, it lacks strength and fullness of tone, but is much more delicate. The Orchard Oriole is a persistent singer, and during the nesting season his lively melody is heard continually, even during the heat of midday. Sometimes, like the Bobolink, he sings on the wing, but only when passing rapidly from one tree-top to another.

He is not, as one might judge from his name, exclusively an inhabitant of the orchard, but is equally at home among the shade trees about the house or along the village streets, especially in the thick foliage of the Norway

Haunts

spruces which are frequently planted about our lawns. Always during the breeding season, however, the Orchard Oriole is distinctly a bird of the cultivated land immediately about man's habitation, rather than of the wilder, wooded country. When the nesting cares are over, the Orioles scatter more widely, and we often come upon little family parties foraging along the fence-rows and wood edges far from house or garden. Originally, before there were any orchards to lure him away, the Orchard Oriole was an inhabitant of wooded river banks, according to Mr. Widmann's experience in Missouri; and in Pennsylvania I have found them in such localities along the wilder parts of the lower Susquehanna valley.

It is no easy matter to locate the singing Oriole, as he clings closely to the shelter offered by the dense foliage of the tree tops. Now and then, however, he flies rapidly from one favorite feeding-spot to another, or back to the nest-tree. As he comes suddenly into view on one of these flights, he always seems smaller than one would expect; probably the volume of his song, or our familiarity with his relative, the Baltimore Oriole, leads us to picture him larger than he really is. His actual length is seven inches, nearly an inch shorter than the Baltimore.

The food of the Orchard Oriole consists largely of caterpillars and other insects that he finds among the tree-tops; but, now and then, especially after the breeding season, we see an individual alight in the open fields, often on plowed

ORCHARD ORIOLE

(Upper figure, adult male; middle figure, young male; lower figure, female)

Order—PASSERES
Genus—ICTERUS
Family—ICTERIDÆ
Species—SPURIUS

ground, in search of other insects that lurk there. Mr. William Brewster has also noticed these birds in South Carolina hovering before trumpet flowers, sipping honey after the manner of Hummingbirds. In late summer, when the family groups go foraging about the country, berries of various kinds seem to constitute a large portion of their food; but, so far as I am aware, they never do serious damage to cultivated fruit.

Food

On this subject of food Major Bendire writes: "Few birds do more good and less harm than our Orchard Oriole, especially to the fruit grower. The bulk of its food consists of small beetles, plant lice, flies, hairless caterpillars, cabbage worms, grasshoppers, rose-bugs, and larvæ of all kinds, while the few berries it may help itself to during the short time they last are many times paid for in the greater number of noxious insects destroyed, and it certainly deserves the fullest protection."

The nest of the Orchard Oriole is usually supported upon slender twigs in the top of an apple tree. It is somewhat pensile, but much shorter and more rigid than the long pocket-like nest of the Baltimore; in fact, it is usually nearly spherical, with the opening somewhat constricted. It is made of fine, dry, greenish or yellow grass, elaborately interwoven and lined, especially on the bottom, with soft vegetable down from thistle blooms, buttonwood seeds, etc. Wilson states that he carefully unwound a single strand of grass from one of these nests and found it to be thirteen inches long and to have been looped through the other strands thirty-four times. The eggs are grayish white with lavender spots and blackish blotches and 'pen marks,' similar to those of the Baltimore, but smaller and more coarsely marked. They are three to five in number, and measure 80 x 55 hundredths of an inch.

Nest

Eggs

I have noticed that Orchard Orioles and Kingbirds often nest in the same tree in the orchards of southern Pennsylvania, and was interested to find that other observers have noticed the same thing in Maryland and South Carolina. For some reason or other, the pugnacious Flycatcher, who usually drives all other birds from the vicinity of his nest-tree, seems able to live on the best of terms with the modest Orchard Oriole.

Audubon, describing the habits of the Orchard Oriole in Louisiana, states that the male has a habit of mounting on the wing during the mating season, jerking his tail and body, flapping his wings and singing with remarkable impetuosity. . . . These gambols and carollings are performed frequently during the day, the intervals being employed in ascending or descending along the branches and twigs of different trees, in search of insects or larvæ. In doing this they rise on their legs, seldom without jetting the tail, stretch their neck, seize the prey and emit a single note. At other times, it is seen bending its body downward in a curved posture, with head greatly inclined upward, to peep at the underparts of the leaves so as not to suffer any grub to escape its vigilance.

The plumage of the male Orchard Oriole is subject to striking changes as

the bird passes from nestling to adult, and these proved very puzzling to the early ornithologists. In fact, it was left for that painstaking bird student, Alexander Wilson, properly to explain the several plumages of this bird. The old male is shown at the top of the accompanying plate in his chestnut and black dress, while the female at all times is in the olive-and-yellow plumage shown in the lowest figure. The male in its nestling plumage, and during the first autumn, is similar to the adult female; but by the next spring we find that he has acquired a black throat, such as we see in the middle figure; so that we often find one nest attended by a black-throated, olive-green male, while the proprietor of the next is clad in chestnut and black. To add to the complication, some of the olive-green males have a part of the tail feathers black, and have black and chestnut spots on other parts of the body. Some ornithologists are of the opinion that these birds are in their second year breeding plumage, while the black and chestnut birds are in the third; but it seems probable that they represent merely individual variations, and that all the males are in the black and chestnut dress by their second nesting-season.

Plumage

At any rate, the male Orchard Oriole is a good example of the interesting problems that are encountered in the study of sequence of plumages and molting. In this connection, it may be stated that similar differences between breeding males of the first and second year may be detected in other species, though they are not usually so pronounced. The Baltimore Oriole is much duller the first year, and the Scarlet Tanager and Rose-breasted Grosbeak have olive or brown wing- and tail-feathers, instead of black ones. All these changes, too, are brought about by a molt or renewal of the feathers, either in the late summer after the breeding-season (postnuptial molt) or in the early spring (prenuptial molt). The feathers themselves do not change color, and wherever changes of plumage such as these take place they are produced by the replacement of feathers of one color by those of another.

Molt

The Orchard Oriole does not range so far north as does the Baltimore Oriole. It breeds from North Dakota, Minnesota, Wisconsin, Michigan, central New York and Massachusetts, to northern Florida, the Gulf coast and northern Mexico, but does not range normally west of Kansas, Nebraska and Texas. In the northern part of its range, too, it is often rare and local, and is greatly outnumbered by the Baltimore. In the southern and lower Middle states, however, it is abundant and outnumbers the Baltimore. In winter it retires to Central America, occurring all the way from southern Mexico to Colombia. It reaches the southern border of the United States about April 1, and the latitude of Washington and St. Louis about April 28. In the autumn we see only a few after September 1; indeed, it would seem that they started south before the postnuptial molt began, as I have never seen an autumnal molting bird from the United States.

Range

Duller in color and in many other respects less striking than his relative, the Baltimore, the modest Orchard Oriole has always had to take second place

The older authors christened him the 'spurious,' or inferior Baltimore bird, and from this has come his specific name *spurius*. Then, too, he is a rather rare bird in the northeastern United States, where most of our bird biographers have pursued their studies, and he has consequently figured but little in literature and is less known than his more brilliant relative. To those who have had the good fortune to know him well, however, he is none the less attractive; while, owing to his preference for the vicinity of man's abode, he is usually associated in our mind with fond recollections.

The old house with its cluster of farm buildings, the rows of gnarled and lichen-covered trunks of the apple trees, their branches laden with green fruit, the warm sunshine of early summer and the song of the Orchard Oriole—all are ever closely intermingled in my memory.

Questions for Teachers and Students

Describe the call-notes and song of the Orchard Oriole. How do they compare with those of the Baltimore Oriole? Where have you found the Orchard Oriole? On what have you seen it feeding? What in general is the nature of its food? Is it a beneficial species? Describe the Orchard Oriole's nest and eggs. Have you ever found it nesting in the same tree with other birds? Describe the plumage of the adult male; of the adult female; of the young male. How is the change from one plumage to another accomplished? At what age is the full chestnut and black plumage acquired? What is the range in summer of the Orchard Oriole? Where does it winter? When does it migrate?

The Audubon Societies

EXECUTIVE DEPARTMENT

Edited by WILLIAM DUTCHER

Address all correspondence, and send all remittances for dues and contributions to the National Association of Audubon Societies, 141 Broadway, New York City

Three Belated State Reports for 1909

MISSOURI.—Missouri has accomplished much in the past year. The last session of the Legislature enacted a complete new law which was drafted by the Audubon Society, and was approved by Dr. T. S. Palmer and the National Association before being introduced. The adverse interests made a bitter fight against the bill, and it was passed wholly through the efforts of the State Audubon Society.

This new law contains the latest form of the 'Model Law.' It provides an annual income from licenses, etc.; appropriates $200,000 for the use of the warden system for the ensuing two years, and creates a state game and fish commission with deputies in each congressional district. We now have the support of the entire press of the state, and practically all agricultural, sportsmen's and scientific societies. Missouri is once more in the front rank in the protection of her wild life.—H. R. WALMSLEY, *President*.

NORTH DAKOTA.—Although the work of the North Dakota Audubon Society has not progressed so rapidly as enthusiasts might desire, the advance has been sufficiently marked to admit of no discouragement. As a stimulus to greater activity, the society brings to the state, each year, prominent lecturers from various parts of the country. The last lecture was given in May.

Active branches have been established at Minot, Fargo and Valley City. Repeated requests from various sources as to the formation of societies proclaim a growing interest throughout the state. Work with the school children is accomplished through the teachers. The society offers Audubon buttons in the usual manner to children who pledge themselves to the protection of birds and nests. Bird-study clubs are encouraged and leaders provided. The society owns a fine collection of bird plates, which are in demand by schools and clubs. The coming year has been marked for an energetic campaign among the schools, and the hopes of the society are high.

At the last session of the legislature, two laws of interest to the Audubon Society were passed; the one creating a state Game and Fish Board of Control, changing the open seasons, adopting the 'Model Law' for the protection of non-game birds, prohibiting spring shooting, protecting shore birds, prohibiting the use of silencers.—MRS. G. F. RUEDIGER, *Secretary*.

SOUTH DAKOTA.—The work of our Society during the last year has been limited by lack of resources. We have, however, now paid our debts, and are in a position to do more active work another year. We have not been idle, however, this year, having done a great deal of missionary work by the distribution of circulars and the promotion of public meetings. The laws passed by our legislature one year ago for the protection of birds have been very well enforced, and there has been a noticeable improvement in the sentiment through the state regarding the protection of both song and game birds.—CHARLES E. HOLMES, *President*.

New Legislation

FEDERAL.—There are now before legislators two especially important bills; one is national in its character, and the second refers only to the state of New York.

H. R. 10276 was introduced in the House of Representatives on May 28, 1909, by Hon. John W. Weeks, of the Twelfth Congressional District, Massachusetts. It is a bill to protect migratory birds in the United States, and reads as follows:

"Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, that all Geese, Swans, Brant, Ducks, Snipe, Plover, Woodcock, Rail, Pigeons and all other migratory birds which, in their northern and southern migrations, pass through or do not remain permanently the entire year within the borders of any state or territory, shall hereafter be deemed to be within the custody and protection of the Government of the United States, and shall not be destroyed or taken contrary to regulations hereinafter provided for.

"Sec. 2. That the Department of Agriculture is hereby authorized to adopt suitable regulations to give effect to the previous section by prescribing and fixing closed seasons, having due regard to the zones of temperature, breeding habits, and times and line of migratory flight, thereby enabling the department to select and designate suitable districts for different portions of the country within which said closed seasons it shall not be lawful to shoot or by any device kill or seize and capture migratory birds within the protection of this law, and by declaring penalties by fine or imprisonment, or both, for violations of such regulations.

"Sec. 3. That the Department of Agriculture, after the preparation of said regulations, shall cause the same to be made public, and shall allow a period of three months in which said regulations may be examined and considered before final adopting, permitting, when deemed proper, public hearings thereon, and, after final adoption, to cause same to be engrossed and submitted to the President of the United States for approval: Provided, however, That nothing herein contained shall be deemed to affect or interfere with the local laws of the States and Territories for the protection of game localized within their borders, nor to prevent the States and Territories from enacting laws and regulations to promote and render efficient the regulations of the Department of Agriculture provided under this statute."

Audubon work has been carried on for twenty-five years, and a material part of the efforts made by it have been for the purpose of securing uniform laws for the protection of wild birds in the United States. While considerable progress has been made, yet there is practically no uniformity of protective laws. The passage of the present bill will do more good than a century of effort with state legislatures.

This bill has received the endorsement of the American Ornithologists' Union, which passed the following resolution at its Twenty-seventh Congress, giving, in a clear and comprehensive manner, the reasons why it advocates the bill.

Resolved: That the American Ornithologists' Union heartily approves of H. R. 10276, introduced May 28, 1909 by the Hon. Mr. Weeks, of Massachusetts, entitled "A bill to Protect Migratory Birds of the United States," for the reason that the Union recognizes the difficulty of obtaining uniform and satisfactory legislation for migratory birds from State Legislatures, and it further believes that all birds which do not remain permanently during the entire year within the borders of any State or Territory, are logically the wards of the Nation, and should be placed in the care of the United States Department of Agriculture.

Attest: Jno. H. Sage, *Secretary*.

State.—The readers of Bird-Lore are well acquainted with the effort made last year by the Audubon Society of the state of New York to secure an amendment to the plumage law of the state, and how the matter ended. That society does not propose to abandon its efforts until it has secured what it considers a necessary amendment to the wild bird law in the state. It has introduced an amendment to Sections 98 and 240 of the state law as follows:

Sec. 1. Section ninety-eight of chapter twenty-four of the laws of nineteen hun-

dred and nine, entitled "An act in relation to the protection of the forests, fish and game of the state, constituting chapter nineteen of the consolidated laws," is hereby amended to read as follows:

98. Certain Wild Birds Protected.—Wild birds other than the English Sparrow, Crow, Hawk, Crow-Blackbird, Snow-owl, Great Horned Owl and Kingfisher shall not be taken or possessed at any time, dead or alive, except under the authority of a certificate issued under this chapter. No part of the plumage, skin or body of any bird protected by this section, *or of any birds coming from without the state whether belonging to the same or a different species from that native to the State of New York, provided such birds belong to the same family as those protected by this chapter,* shall be sold or had in possession for sale. The provision of this section shall not apply to game birds for which an open season is provided in this chapter; excepting that Quail, English Pheasants and Hungarian Partridges shall not be taken at any time in Richmond county prior to the year nineteen hundred and fourteen.

Sec. 2. Section two hundred and forty of said act is hereby amended by adding a new sub-division to said section, to be known as sub-division eighteen thereof and to read as follows:

18. Plumage includes any part of the feathers, head, wings or tail of any bird, and wherever the word occurs in this chapter reference is had equally to plumage of birds coming from without the state as to that obtained within the state, but it shall not be construed to apply to the feathers of birds of paradise, ostriches, domestic fowl or domestic pigeons.

All members of the Audubon Societies of the country, and all readers of Bird-Lore, can do the cause of bird protection a great deal of good by urging their Congressmen to consider favorably House Bill 10270. A personal letter to your Congressman will accomplish a great deal. You should not only write such a letter yourself, but get your friends and neighbors to do the same. Similar letters should be written by residents of New York state to their Assemblymen and State Senator regarding the amendments proposed by the New York Audubon Society.

If persons who desire to write such letters, and do not know the names of their representative in Congress, will send a postal to the National Association Office at 141 Broadway, New York City, the desired information will be furnished, and the same information will be given to residents of New York state.

Both of these proposed laws are so necessary that it is hoped by the officials of the National Association that a very deep interest will be taken in them by every one who is interested in the subject of bird protection, and that every one will take some part in urging both the national and state legislators to give the matter their favorable and early consideration.

Reservation Notes

Pelican Island, Florida.—Warden Kroegel reported, on October 15, that there were about five thousand birds on the island, that courtship and the selecting of nesting-sites was already under way, and that when the old birds returned they drove off of the island what young there were left from the previous breeding season, and that these latter had taken possession of a small adjoining island. On November 1, the warden reports that there were "about one thousand nests on the island, mostly containing eggs."

Klamath Lake Reservation.—Warden Lewis reports as follows: "The season's work is now drawing to a close, and winter is coming, when portions of the Reserve will at times, usually of short duration, be frozen over. However, there are many creeks and springs in the Reserve which never freeze, which afford splendid opportunities to the pot hunter to do his work. Sheepie Creek, Willow and Grebe Creeks never freeze. These creeks, with dozens of springs, have heretofore afforded splendid opportunities to the market hunter. It is going to be difficult to patrol the Reserve in the winter, as it will require

a shore patrol, but I believe we will be able to prevent hunting, by energetic work. I feel it would never do to let our good work of the summer be annulled by withdrawing our patrol in the winter. It will be very hard, disagreeable work in the winter on account of the outdoor work in stormy weather.

"I have succeeded in making ten arrests and securing nine convictions under state laws; the tenth case is still pending and I hope to secure a conviction in this. In doing this, I believe I have not forfeited the sympathy of the people in general to the enforcement of the game laws, as I have been fortunate in prosecuting deserving cases. I am preparing to do some effective winter work, and have spent considerable money in a winter equipment."

A New Lease.—The National Association has just secured a lease from the Governor and Council of the state of Maine, through Mr. Edgar E. Ring, Land Agent and Forest Commissioner of "The Brothers" and "Pulpit Rock" islands at the mouth of Englishman's Bay. Both of these islands are breeding-places for large numbers of Herring Gulls. The state of Maine generously gives the lease, without any rent consideration, provided the Association will use the islands only as a bird refuge and will keep them properly policed.

259,000 Pairs of Wings Seized!

The value of Bird Reservations, and the continued wholesale slaughter of birds for millinery purposes, are both emphasized by news just cabled from Honolulu that Capt. W. E. Jaboks, of the revenue cutter, 'Thetis,' has arrested twenty-three Japanese on the Hawaiian Island Reservation where they had already collected 259,000 pairs of birds' wings.

It should be noted that this is one of the Reservations secured in part, through the efforts of the National Association, having been set aside by Ex-President Roosevelt on February 3, 1909.

Bird-Boxes

The National Association has and still recommends the use of the von Berlepsch bird-boxes and feeding-houses. It is necessary, however, to call the attention of prospective buyers to the fact that to the prices quoted in the von Berlepsch book must be added about 125 per cent for duty, freight, custom-house and incidental expenses.

In this connection, the National Association desires to call the attention of the readers of Bird-Lore and Audubon members in all parts of the country, to some excellent American-made bird-boxes Through the enterprise of Mr. J. Warren Jacobs, of Waynesburg, Pa., various types of nesting-boxes, from simple designs, suitable for the use of Bluebirds, Wrens and other hole-nesting birds, to more elaborate structures, suitable for Martins can now be readily obtained in this country. We hope that Mr. Jacobs' business venture will receive sufficient support from those interested in attracting birds about their homes to warrant his continuing his industry, and also to devise some machinery that will enable him to make an artificial nesting-hole for Woodpeckers.

The Trade in Plume Birds

The address delivered by Mr. James Buckland before the Royal Society of Arts in London on December 8, 1909, contains some startling figures in relation to the plume trade. Quoting from the 'Consular Reports on the Trade and Commerce of Venezuela,' Mr. Buckland shows that in 1898 at least 1,538,738 White Egrets were killed for their plumes while in 1908 the number had fallen to 257,916. Mr. Buckland remarks: "These particular figures cannot be considered too gravely. They furnish complete evidence, not only of the rapid diminution of the species in Venezuela, but also complete evidence—unless effective protection comes in time to save the bird—that what has happened in North America and in China is going to happen in South America; and, for

the matter of that, in every country in the universe where the White Heron is found."

In addition to the Aigrette plumes mentioned, 10,612 pounds of "other feathers and plumage" were reported from Ciudad Bolivar, Venezuela, alone in 1908.

Of those marvels of bird-life, Paradise birds, 20,000 skins are exported annually from north and west Dutch New Guinea alone, while two traders at Humboldt Bay, in northwest New Guinea were known to export 12,000 birds' skins every three months, chiefly of the Lesser Bird of Paradise.

We commend Mr. Buckland's address to every one interested in the subject of bird preservation. It may be found in the Journal of the Royal Society of Arts (John Street, Adelphi, London W. C.), for December 10, 1909, price 15 cents, postpaid.

A Last Effort to Find and Save from Extinction the Passenger Pigeon

The following is a memorandum read at the meeting of the American Ornithologists' Union, New York City, Dec. 9, 1909.

"Through the interest and generosity of Colonel Anthony R. Kuser, I am able to offer the following award.

"$300—THREE HUNDRED DOLLARS—$300

For first information of a nesting pair or colony of wild Passenger Pigeons (*Ectopistes migratorius*)

UNDISTURBED

"Before this award will be paid such information, exclusive and confidential, must be furnished as will enable an expert ornithologist to visit the nest and confirm the finding. If the nest and parent birds are found *undisturbed*, the award will be promptly paid. This award applies to the first nest or nesting colony discovered and confirmed anywhere on the continent of North America. —C. WILLIAM BEEBE, *New York City.*

"Further, Colonel Kuser withdraws his offer of $100, for a freshly killed passenger pigeon. He does this on account of the great present danger of complete extinction of the species.

"Until Jan. 1, 1911, during Mr. Beebe's absence from America, address all correspondence on the subject to C. F. Hodge, Clark University, Worcester, Mass., who will arrange for confirming party and payment of the award, if a nest or nesting colony is found."

With the aid of Colonel Kuser's liberal offer it is hoped to find and save, not only the first, but practically, every Passenger Pigeon's nest on the continent. In order to do this and to arouse general interest which shall result in a complete and adequate search of the entire country, we need volunteer local awards—at least one of $100—for first undisturbed nest or nesting colony found in each state or Canadian Province, in which the bird is likely to occur. The following additional rewards have already been offered for undisturbed nests:

W. B. Mershon. For first nest or nesting colony found in Michigan—will confirm at his own expense $100

A. B. F. Kinney. For first nest found in Massachusetts 100

Edward Avis. For first nest found in Connecticut. Will confirm at his own expense 100

Professor C. O. Whitman and Ruthven Deane. For first finding in Illinois 100

John E. Thayer. Five awards of $100 each, for the five most likely states or Canadian Provinces for which no local offers have been volunteered by April 15 500

John E. Thayer. Toward expenses of confirming reports 100

A. B. Miller. For first finding in Worcester county, Massachusetts 20

George Bird Grinnell. Toward minor expenses of work—postage, printing, office help, etc. 25

None of this money has been paid in and none will be asked for until nests or nesting colonies have been reported and confirmed; or until expenses of office or traveling expenses connected with the work have exceeded $100, the amount which the undersigned has agreed to contribute toward the investigation.—C. F. Hodge, Clark University, Worcester, Mass.

1. Aleutian Song Sparrow
2. Song Sparrow
3. Desert Song Sparrow
4. Sooty Song Sparrow
5. Samuel's Song Sparrow

(one-half natural size)

Bird-Lore

A BI-MONTHLY MAGAZINE
DEVOTED TO THE STUDY AND PROTECTION OF BIRDS

OFFICIAL ORGAN OF THE AUDUBON SOCIETIES

Vol. XII MARCH—APRIL, 1910 No. 2

President Roosevelt's List of Birds

Seen in the White House Grounds and About Washington During His Administration†

WHEN Mr. Richard Kearton, the English ornithologist and author, brought his wonderful motion pictures of bird-life to this country, he came directly to Washington, and gave his first exhibition at the White House to a small company of invited guests. President Roosevelt seemed to enjoy the entertainment immensely, and when it was over he congratulated Mr. Kearton warmly. Then the two became the center of a distinguished group of outdoor men, including Ambassador Bryce, and they talked for an hour on a variety of subjects,—beginning with snakes and ending with nature-faking.

It was when the party was breaking up that I had an opportunity to speak with the President, and I asked him if I might make, from a magazine article of his, a list of the birds he mentioned having seen about the White House. I explained that I wanted it for a new edition of the local bird book, 'Birds of Washington and Vicinity.'

"Why yes," he answered cordially. "But I'll do better for you than that. I'll make you a list of all the birds I can remember having seen since I have been here."

Then he said I had better remind him, as he might forget it, and he told me how to address a note so that it would come directly to him, without risk of falling into a secretary's waste-basket.

I wrote the reminder, and it shows the President's characteristic promptness that within twenty-four hours after mailing it I received this list of ninety-three birds in his own handwriting.

Where an unusual name is given, I have added another in brackets. What a Bush Sparrow was I did not know and could not find out, so I wrote Mr. Roosevelt again, but not until after he had left Washington and was at Oyster Bay engrossed with preparations for his African trip. I hardly expected a reply, but some weeks later received a note from the Outlook office saying the writer had

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been instructed by Mr. Roosevelt, before his departure, to say that a Bush Sparrow is a Field Sparrow.—Lucy W. Maynard, *Washington, D. C.*

(*Denotes a species seen on White House grounds)

Night Heron. Five spent winter of 1907 in swampy country about one-half mile west of Washington Monument.
Mourning Dove.
Quail.
Ruffed Grouse. One seen on Rock Creek.
Sharp-shinned Hawk.
Red-shouldered Hawk.
*Sparrow Hawk. A pair spent the last two winters on and around the White House grounds, feeding on the Sparrows—largely, thank Heaven, on the English Sparrows.
*Screech Owl. Steady resident on White House grounds.
*Saw-whet Owl. A pair spent several weeks by the south portico of the White House, 1905.
Kingfisher.
*Yellow-billed Cuckoo.
Hairy Woodpecker.
*Downy Woodpecker.
*Sapsucker.
*Red-headed Woodpecker. Nests (one pair) on White House grounds.
*Flicker. Nests (several pairs) on White House grounds.
Whip-poor-will.
Nighthawk.
*Chimney Swift.
*Hummingbird.
Kingbird.
Great Crested Flycatcher.
Phœbe.
Wood Pewee.
Horned Lark.
*Crow.
*Fish Crow.
*Orchard Oriole. One pair nested in White House grounds.
Bobolink.
Red-winged Blackbird.
*Baltimore Oriole.
Meadowlark.
*Purple Grackle. Nests on White House grounds. Very abundant in early spring.
*Purple Finch.
*Thistle Bird (Goldfinch).
Vesper Sparrow.
*White-throated Sparrow. Sings; this year sang now and then all through the winter.
*Tree Sparrow.
*Chippie (Chipping Sparrow). Nests.
Bush Sparrow (Field Sparrow).
*Snow Bird (Junco).
*Song Sparrow. Nests.
*Fox Sparrow.
*Cardinal.
Towhee.
*Indigo-bird. Nests.
Tanager.
Purple Martin.
*Barn Swallow.
Tree Swallow.
Bank Swallow.
*Cedar Bird.
Logger-head Shrike.
*Red-eyed Vireo. Nests.
*Warbling Vireo. Nests.
*Black and White Warbler. Nests.
*Blue Yellow-backed Warbler (Parula Warbler).
*Cape May Warbler.
*Summer Yellowbird. Nests.
*Black-throated Blue Warbler.
*Black-throated Green Warbler.
*Myrtle Warbler.
*Magnolia Warbler.
*Chestnut-sided Warbler.
*Bay-breasted Warbler.
*Blackpoll Warbler.
*Blackburnian Warbler.
Prairie Warbler.
Oven-bird.
Water Thrush.
Kentucky Warbler.
*Yellowthroat.
Chat.
*Blue-winged Warbler.
*Canadian Warbler.
*Redstart. Nests on White House grounds.
Pipit.

Mockingbird.
*Catbird. Nests on White House grounds.
Thrasher.
House Wren.
*Carolina Wren.
Marsh Wren.
*Brown Creeper.
*White-breasted Nuthatch.
*Tufted Tit. Nests on White House grounds.
*Chickadee.
*Golden-crowned Kinglet.
*Ruby-crowned Kinglet.
Gnatcatcher.
*Wood Thrush. Nests on White House grounds.
*Bluebird.
*Robin. Nests on White House grounds.

(Doubtless this list is incomplete; I have seen others that I have forgotten.)

Theodore Roosevelt.

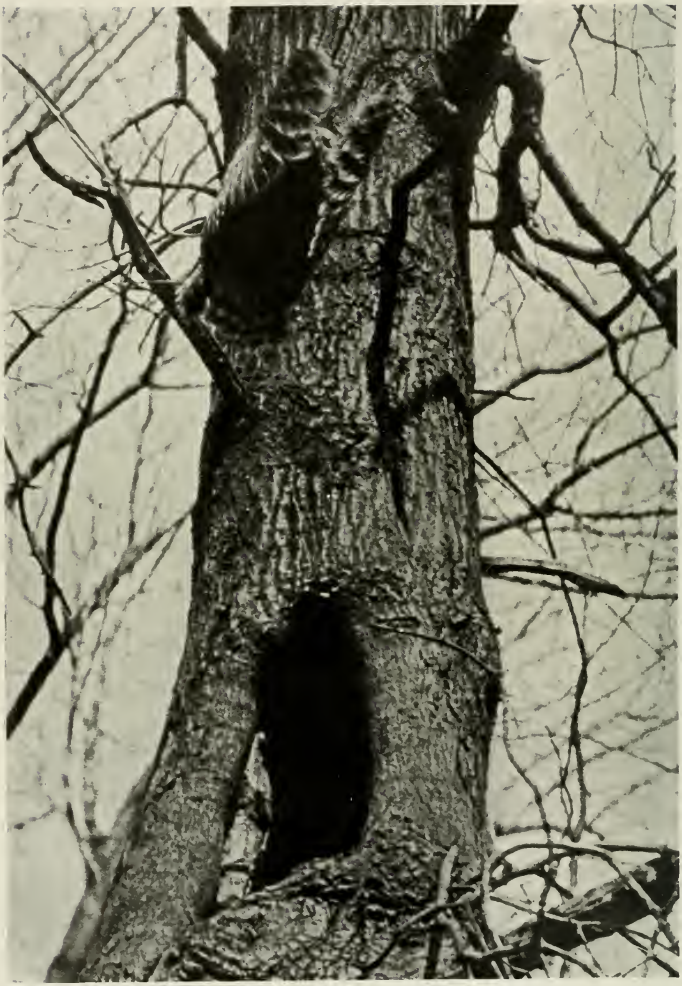
March 27, 1908.

GOLDEN-EYES ON YELLOWSTONE LAKE
Photographed by George Shiras, 3d, July, 1909

THE MEADOWLARK

The cheerless remnant of the snow-drift lies
Along the fields, and there are wintry skies
Whose chilling blasts assail thee, Meadowlark.
I know not how you find subsistence here,
Among the withered herbs of yester-year:
I grieve for your uncertain days—but hark!
I hear your brave note calling, loud and clear.

—*Edward R. Ford.*



BARRED OWL LEAVING NEST IN HOLLOW TREE

Photographed by Howard H. Cleaves, on Staten Island, N. Y., April 11, 1900

The Pileated Woodpecker

By ERNEST WATERS VICKERS

With photographs by the author

SUGAR MAPLE, SHOWING THE EXCAVATIONS MADE BY THE PILEATED WOODPECKER. Ellsworth, Ohio.

SO far as his continental occupancy is concerned, this great black Woodpecker is doomed. Civilization is banishing him to a few inaccessible happy hunting-grounds; the shrieking moan of a thousand portable saw-mills are already hymning his requiem. He cannot live on the selvage, like the Crow, or find new prospects and privileges under civilization's newly imposed conditions, as have the Robin and Flicker; but must share a fate common with the primeval forest, since his life is part and parcel with the untamable spirit that haunts the wilderness. And in a land where liberty spells the right to carry a gun and destroy every creeping and flying thing, his end is only the more certain.

According to reports from all sections east of the Mississippi and south of the Great Lakes, this 'great northern chief of his tribe,' as Alexander Wilson styles him, is disappearing or has already gone; so that bird-lovers tramp miles to secure a glimpse of his vanishing forms, and publish him in their notes with enthusiastic gladness.

The writer has been familiar with this bird in northeastern Ohio for more than a dozen years, and here he has held his own, despite the growth in population and rapid deforestation that have taken place in that length of time.

To study the Log-cock in his haunts is a memorable experience, which words fail to describe. It kindles enthusiasm to the superlative degree.

Search the bird-books if you would gain an idea of his outward appearance, but it is of his very spirit that we would give a glimpse. An animus of wild, dashing joy, full of nervous, tireless, almost impatient industry; utter aloofness from all man-made things; loud, ringing, derisive laughter; vigorous, straight-away flight, bearing that chisel-beak firmly set on his short-necked powerful head, —thus with his brief, flowing crest he suggests the Kingfisher, as he dashes across alternate patches of light and shade with cackling laughter. Every movement suggests a personality of unusual vim and poise and independent power. He

does nothing by halves; his industry is intense. When he smites his chosen sounding-board, the woods reverberate with the wooden music. When hewing his way to a meal in the heart of a tree, the wintry silence is filled with the clatter of his workshop, and the chips fly.

Think of him, almost as big as a Crow, some eighteen inches long by twenty-eight inches in expanse, sooty black, with white stripes flowing from cheeks down neck and out into his wings, the royal head in its scarlet cap, and the male with scarlet mustaches to match, and that unutterably savage orange eye!

CHIPS FROM THE PILEATED'S WORKSHOP
About one-half natural size

If a workman is known by his chips, then the Log-cock is well advertised,—the scene of his operations presenting an astonishing sight for amount of debris and size of the chips. Thus there was the force of real meaning in his old scientific name, *Hylotomus*, derived from the Greek and meaning "wood-cutter," for he is the feathered wood-cutter par excellence to those who know his habits. In proof of this, we offer a plate of his bent chips about one-half natural size. These were of good, sound maple wood, showing ant holes, In striking, the Log-cock employs a writing or wrenching stroke, which sends chips flying to a considerable distance; some we have picked up six feet from the base of the tree.

Like the Flicker, he is a great lover of ants, which accordingly occupy a large place in his bill-of-fare. So, to dine on the big black timber ants, which are his

special delight, he drives holes to the very heart of growing forest trees, tapping the central chamber of the colony, where, in winter, he finds the dormant swarm unable to move and feasts upon them at leisure. This habit of riddling trees has caused the inobservant to condemn him for a timber destroyer; which is as great a mistake as to conclude that all Woodpeckers are Sapsuckers because one had the habit of puncturing the bark and drinking sap. A tree containing an ant colony is already doomed. And the Log-cock makes no mistakes, though man might find no outward sign of an ant-tree. Doubtless that strong formic smell, coupled with his experience in sounding tree trunks,—as a man tells a ripe watermelon by the *plunk* of it,—enables him not only to find the tree, but, what is more remarkable, to drive his hole with such precision that he taps the heart of the community.

This illustration of a maple tree, a foot in diameter, will give some idea of such excavations as this feathered wood-cutter will make in order to indulge his fondness for ants. The largest of the four holes was 7 inches long, $2\frac{3}{4}$ inches wide, and 7 inches deep. The next in size was $6\frac{3}{4}$ inches long, $2\frac{1}{2}$ inches wide and 7 inches deep. All four holes passed through 3 to 5 inches of sound wood each. If any man were given a small gouge or chisel and a light mallet, and forced to cut such a series of holes, he would rightly feel that he had quite a task before him. But here was a bird doing the work with no tools but his beak.

These holes also record the retreat of the surviving ants upward in the tree, or its occupancy by another swarm. The involution of new bark, clearly shown in the illustration, about the two lower holes proves that they were made the winter previous, while the upper two were excavated late the following summer or after the spring growth. Two more holes on the south side of the tree, which do not show in the illustration, the lower of which is eight and one-half inches above the highest hole shown on the east side, were made the following autumn. Hence it would appear that each time of revisitation *Hylotomus* (or *Ceophlœus*, as we now call him) found that the survivors had retreated a little higher, and followed them up. Thus, in a way like a landlord, he goes his rounds and collects his rent. This illustration of the Log-cock's work is not a show specimen; numbers can be found in his range to equal or surpass it. We have seen sugar-maple, soft sugars, basswood or linden, wild cherry and various species of ash, operated upon in this way by the Pileated Woodpecker.

A New Departure for the Redwing

By HOWARD H. CLEAVES, Staten Island, N. Y.

With photographs by the author

FEMALE REDWING BLACKBIRD HOVERING

THE Red-winged Blackbird is generally associated with wet, marshy places. His three-syllable note, or song, we expect to hear from the tree-tops on the border of some cat-tail swamp, along some creek, or at the edge of a pond.

The nest is easily located, being placed sometimes in a tussock of grass near the margin of the water, or out in an open stretch of marsh-land in the short grasses. More often it is suspended from the upright stems of the highwater-shrubs or the tall marsh grasses. The two latter nests differ from the others. They are woven on the outside with plant fibers, and fastened to their supports in a manner which makes them resemble, in a degree, the nest of the Baltimore Oriole. Generally they are placed several feet from the ground. The former nests are invariably placed very close to the ground, or water, being only a few inches up the stems of the grasses to which they are attached, and in no wise do they resemble a pendent nest. They are constructed throughout of grasses of various sizes.

But the Redwing is changing the nest-building customs of his race. He is completely shifting the scenes of his domestic life. That is, he is doing so in a certain section of Staten Island.

Last summer, while photographing Bobolinks, I had occasion to do a great deal of walking back and forth through a daisy field, in search of nests. Red-winged Blackbirds seemed numerous about the place, and would first alight on the tree-tops at the edge of a wood, and then fly excitedly out over the field and hover just above my head. I must have been too much absorbed in my Bobolinks at first to take note of the Redwings, for not until a female of the latter species had actually been flushed from her nest did it occur to me that these birds might do such an unheard-of thing as to build in an upland hay-field, within a few rods of the nests of the Bobolink and Meadowlark. But here was unquestionable proof. Father Redwing sat in a tree-top, scolding; the mother hovered excitedly over my head; and just in front of me, supported by a cluster of daisy stems, was the nest. The set of eggs was incomplete, but the eggs were unmistakable. The nest-site had changed, but the eggs were scrawled with the same short-hand markings that adorn all Redwings' eggs. The nest was of the type found in the short salt-meadow grass, and was only four inches from the ground.

I stopped long enough to photograph this rather unusual find, and when I resumed my Bobolink work I soon happened upon another, this one containing four eggs. This second nest was distant from the first about a hundred yards, and no doubt there were more nests in the field, because at one time there were four anxious females hovering in the air.

As stated above, the Redwings have always nested hereabout, either on the salt meadows or along the borders of fresh-water ponds. The pond-borders have, of late years, become so spoiled by cows and men that they now offer scarcely a suitable nesting-site. The salt meadows have all been ditched, and I often think that I would much rather endure mosquitos in their former numbers than to have the scarcity of bird-life on the meadows which this ditching has apparently caused. Formerly, during the spring and fall migrations, the meadow lands attracted Greater Yellow-legs, Least and Semipalmated Sandpipers, Semipalmated Plovers, and several others which are now rarely seen there.

However, these migrants are not the only birds to be affected. The Redwings nested formerly in such numbers that to find half a dozen or more of their nests within an hour was nothing remarkable. But the drying up of the meadows has brought about a change. The grass is now parched, and small fish lie dead in stale water-holes where Night Herons and Green Herons once made successful catches. Soft mud here and there after a rain bears the impressions made by Crows' feet, and I am inclined to believe that the Crows play a more or less important part in the increasing discomforts of the Redwings. Before, the meadows were, for the most part, covered with water to the depth of several inches.

HILLSIDE WHERE REDWINGS NEST AMONG THE DAISIES

Now the water is all drawn off, and the Crows can alight anywhere they please and destroy the contents of the Blackbirds' nests. On several occasions, nests containing eggs have been located, and a day or two later have been found empty and deserted. One day four such nests were observed, their linings being usually torn out and scattered about the spot. Last season no Redwings nested on the meadows.

The question arises: Are these adverse conditions causing the Redwing to move to a new and different place during the nesting period, or is he doing it for reasons of another character? It seems that the dominant instinct to return each year to the same general locality is still strong, but that an entirely new area *in* that locality is gradually being accepted as the place for the rearing of the annual brood.

"PLACED THE PREY IN FRONT OF THE EXPECTANT YOUNGSTER"
From Macpherson's 'The Home-Life of the Golden Eagle.' See page 62

Notes on Water Birds in Forest Park, St. Louis

By H. C. WILLIAMS and N. deW. BETTS

THE accompanying table gives a list of the water birds that were observed on the ponds of Forest Park, St. Louis, during the spring and fall of 1908, and spring of 1909. With the exception of three species (marked W in the table), the list is based on notes made by the writers, who were stationed in the park near the ponds, and had a very good opportunity to keep a register of the visitors during the week-days. The dates on the three additional species were kindly furnished by Mr. Widmann.

The list is probably far from complete, for, while many of the birds remained for a considerable number of days or even weeks, others would stay for only a few hours. This was especially true of Waders and Terns, several of which passed on without waiting for identification.

The ponds are of recent formation, lying within the site of the World's Fair of 1904, and are not large, covering perhaps eight acres. There are two main irregularly shaped ponds, connected by canals, with a total length of about one-half mile. The canals are bordered with shrubbery, but the ponds are practically open on all sides and partially bordered by the Park highways. Small fish, frogs, and crayfish are apparently very abundant, and probably furnish the chief attraction in keeping the Ducks on the ponds. Water-plants are not in evidence to any extent, and must occupy a very small portion of the bill-of-fare.

One of the most interesting things noticed was the short space of time necessary to make the Ducks feel at home after a stay of a day or two. They apparently realized that they were safe, for, instead of flying at any one's approach, they simply swim out to the center of the ponds and allow themselves to be observed. It was a good illustration of the value of bird refuges; for it is not always easy for those accustomed to the actions of hunted birds to believe the stories of the tameness of those that are consistently let alone. It is possible, however, that birds in a park, where people are almost a part of the natural conditions, would become unsuspicious much sooner than in a less-frequented preserve.

The number of birds of any one species usually varied considerably, and, in order to give a fair idea of the number present, two columns are given in the table, headed "average" and "greatest" number. The average number is used, in the case of species that were seen on and off for several weeks, to show the number usually present. The inclusive dates give the first and last observations, and do not necessarily mean a continuous presence.

The Scaup Ducks were by far the most numerous, and a flock of from eight to twelve was present continuously for six weeks in the spring of 1909. During the day they usually rested near the center of the ponds, not feeding to any extent until evening. Their characteristic method of feeding was to swim rather slowly along the shore, making frequent and rapid dives,—as though pursuing frogs that had darted away from the bank. The Mergansers, Canvasbacks, Golden-eyes, and

Buffle-heads, usually fed nearer the center of the ponds, diving continuously and at apparently no particular time of the day. Black Terns were present on five separate occasions in the spring of 1909, appearing in the forenoon and flying about over the ponds until dusk. They were never present when we arrived at the park in the morning. While flying about, they made frequent swoops close to the surface, as though catching insects, it being very seldom that they actually entered the water. The five Canada Geese were too timid to remain long enough for observations, leaving very shortly after they came down to inspect the place. The Cormorant also departed at the first sight of an onlooker. The Pelicans were observed circling above the park, and did not attempt to make a landing. The Pelicans and the Great Blue Heron were the only species out of the thirty-one listed that did not actually come down to the ponds, and perhaps, strictly speaking, should not be included in the table

List of water birds seen on and about the ponds of Forest Park, St. Louis, Mo.

Species	Average Number	Greatest Number	Spring, 1908	Fall, 1908	Spring, 1909
Pied-billed Grebe	5	26	Mar. 22–May 9	July 24–Nov. 14	Mar. 22–May 3
Loon (G. imber)		1			Apr. 24–27
Forster's Tern		2			May 1–4
Common Tern		5			May 27
Black Tern	12	38		Aug. 11, 12	May 6–27
Cormorant		2			Apr. 19, May 12
White Pelican	50	100		Sept. 2, 29	
American Merganser		1	Apr. 4	Dec. 5, 6	
Hooded Merganser	4	7	Apr. 8	Nov. 3–Dec. 19	
Mallard		2		Sept. 30–Dec. 9	
Gadwall		1		Nov. 16–Dec. 9	
Baldpate (W)		6			Apr. 4
Blue-winged Teal	2	12	Apr. 4–29	Sept. 28–Oct. 24	
Shoveller (W)		7			Apr. 4
Pintail		1			Feb. 10
Wood Duck		8		Oct. 6	
Canvasback		1			Mar. 6–13
Lesser Scaup Duck	10	60	Mar. 9–Apr. 21	Oct. 7–Dec. 7	Mar. 4–May 11
American Goldeneye	2	4		Nov. 21–Jan. 6, '09	Mar. 17–Apr. 26
Bufflehead	1	3		Oct. 27–Jan. 5, '09	Mar. 1–Apr. 5
Ruddy Duck		2		Nov. 3–Nov. 14	Mar. 10
Canada Goose		5			Apr. 5
Great Blue Heron (W)		1		Nov. 7	
Green Heron		1	May 5		May 3–25
American Coot	1	4	Apr. 8–May 9	Nov. 21–Dec. 1	Apr. 1–May 24
Wilson's Snipe		2		Nov. 21	Mar. 23–Apr. 14
Pectoral Sandpiper		5			Mar. 31–May 1
Greater Yellowlegs		5	Apr. 28		Apr. 8–May 1
Solitary Sandpiper	1	3	May 1–5		Apr. 24–May 10
Spotted Sandpiper	2	3	May 2–5	Aug. 12	May 3–15
Killdeer		4	Mar. 5		

Hooded Merganser in a Chicago Park

By HERBERT R. MILLS

GARFIELD PARK, a large natural woodland containing several acres of beautiful lagoons, is situated in Chicago's thickly settled west side. Here, in sight of Madison Street's continual procession of street cars, and within range of the roar from Lake Street's elevated and surface lines, a Hooded Merganser, in adult male plumage, has come and remained for the past eighteen months. His first appearance in the park was during the spring migration of 1908, and since then my frequent visits to the park have never failed to find him contentedly feeding along the edge of some lagoon, in company with the tame Ducks and Swan that are kept there.

HOODED MERGANSER IN A CHICAGO PARK LAKE
Photographed by Herbert R. Mills

He is apparently unin'ured. I have never seen him fly, but he sometimes leaves the water and walks up on the shore to sit among the bushes on the bank. In the water he far surpasses the tame birds in speed and power. He seems to have lost all fear of human beings, for he will dash up to the very water's edge to snatch the cracker or piece of bread offered to him. When food is thrown out on the lagoon, he will shoot through the water like a meteor, and seize the morsel from under the very bill of the tame Duck, whose alertness and power of instantaneous reaction have long been lost through years of domestication.

Something in the distinguished appearance and dignified demeanor of this wild beauty renders him conspicuous as a foreigner in his civilized environment, and induces the immediate appellation of "Wild Duck" from every one who sees him. The elevating influence that unspoiled Nature exerts over our lives is manifest in the charm that attracts hundreds of park visitors toward the little wild Merganser, and causes them to stop and gaze with admiration upon his beauty. He so far overshadows his humble domestic relatives in character that they are entirely ignored while in his presence. Such is the charm of the wilderness which envelopes every wild being, radiating its message with every pulse of its life. The beholder is spirited back to the wild, simple days of his own heritage, when sin, sickness and suffering were the exception, and his endeavor to live a pure, natural life receives a new impetus.

I hope that the presence of the Hooded Merganser in this crowded city will emphasize the value of natural associations to mankind, and prove a powerful mission to the cause of bird protection.

FLORIDA SCREECH OWL ON NEST
Photographed by P. B. Philipp

The Migration of North American Sparrows

THIRD PAPER

Compiled by Professor W. W. Cooke, Chiefly from Data in the Biological Survey

With Drawings by Louis Agassiz Fuertes

(See frontispiece)

SONG SPARROW

This species, as a whole, ranges from ocean to ocean, but over much of this wide area it is not possible to trace the movements of the migrating individuals because the observers cannot distinguish these from the resident breeding birds. Thus, on the Pacific slope most of the Song Sparrows perform a more or less extended migration, but some winter north to British Columbia and others breed south to Lower California. It is not possible, therefore, to give any migrating dates for the Pacific slope. In the eastern United States the birds winter north regularly to Nebraska and New Jersey, and breed south to southern Nebraska and southern Virginia. Thus there is a belt in the vicinity of the parallel of 40° N. latitude in which Song Sparrows are found every month in the year and no migration data are available.

SPRING MIGRATION

PLACE	Number of years' record	Average date of spring arrival	Earliest date of spring arrival
Northern New Jersey	17	March 5	A few winter
Alfred, N. Y.	17	March 15	February 23, 1909
Auburn, N. Y.	7	March 17	A few winter
West Winfield, N. Y.	7	March 17	March 7, 1906
Vernon Center, N. Y.	6	March 23	March 16, 1893
Bridgeport, Conn.	4	March 4	A few winter
Jewett City, Conn.	21	March 8	February 27, 1906
Hadlyme, Conn.	6	March 12	March 3, 1898
Hartford, Conn.	16	March 16	February 21, 1906
Canaan, Conn.	7	March 21	March 8, 1894
Pawtucket, R. I.	5	March 1	February 23, 1887
Fall River, Mass.	3	Feb. 25	February 20, 1887
Attleboro Falls, Mass.	4	Feb. 28	February 24, 1902
Springfield, Mass.	6	March 14	March 9, 1898
West Groton, Mass.	7	March 12	March 9, 1894
Framingham, Mass.	8	March 13	March 8, 1897
West Roxbury, Mass.	7	March 13	February 26, 1888
Beverly, Mass.	9	March 12	February 27, 1906
Amherst, Mass.	6	March 16	March 7, 1894
Pittsfield, Mass.	6	March 17	March 13, 1902
Fitchburg, Mass.	8	March 17	March 12, 1908
East Templeton, Mass.	9	March 21	March 14, 1893
Manchester, Vt.	5	March 27	March 18, 1893
Wells River, Vt.	5	March 27	March 23, 1908
Randolph, Vt.	7	March 30	March 19, 1894
Charlotte, Vt.	13	April 1	March 13, 1898
St. Johnsbury, Vt.	13	March 31	March 20, 1908
Southern New Hampshire	14	March 20	March 11, 1898
Hanover, N. H.	5	March 25	March 18, 1898
Lancaster, N. H.	4	April 2	March 28, 1889
Portland, Me.	7	March 21	March 14, 1908

SPRING MIGRATION, continued

PLACE	Number of years' record	Average date of spring arrival	Earliest date of spring arrival
Westbrook, Me.	6	March 27	March 13, 1894
Phillips, Me.	6	March 29	March 15, 1908
Plymouth, Me.	13	April 1	March 19, 1878
Orono, Me.	7	April 1	March 22, 1894
Grand Manan, N. B.	5	March 31	March 23, 1889
St. John, N. B.	11	March 31	March 18, 1898
Halifax, N. S.	8	March 29	March 20, 1903
Scotch Lake, N. B.	6	April 2	March 20, 1903
Pictou, N. S.	6	April 6	March 14, 1894
Chatham, N. B.	12	April 14	March 29, 1898
North River, Prince Edward Island	4	April 5	March 19, 1889
Montreal, Canada	5	April 4	March 22, 1897
Quebec City, Canada	18	April 12	March 26, 1902
Godbout, Que.			April 13, 1885
Lake Mistassini, Que.			May 23, 1885
Southern Missouri	8	March 10	A few winter
Waterloo, Ind.	9	March 5	Rare, winter
Wauseon, O.	8	Feb. 19	February 7, 1898
Oberlin, O.	5	March 6	February 20, 1892
Sandusky, O.	5	March 6	February 6, 1898
Cleveland, O.	10	March 6	February 6, 1891
Plymouth, Mich.	9	March 3	January 29, 1906
Petersburg, Mich.	7	March 5	February 4, 1890
Battle Creek, Mich.	8	March 10	March 5, 1909
Brant, Mich.	8	March 18	March 10, 1903
Upper Peninsula, Mich.	6	April 13	March 29, 1905
Dunnville, Ontario	5	March 12	February 6, 1896
Strathroy, Ontario	11	March 14	February 24, 1899
Galt, Ontario	10	March 16	March 9, 1894
Plover Mills, Ontario	6	March 18	March 9, 1887
Toronto, Ontario	16	March 18	March 10, 1898
Ottawa, Ontario	21	March 24	March 12, 1894
Kearney, Ontario	4	March 24	March 18, 1898
Sault Ste. Marie, Ontario	5	April 3	March 31, 1905
Onaga, Kans.	11	March 6	February 4, 1894
Keokuk, Ia.	6	March 22	Rare, winter
Hillsboro, Ia.	5	March 14	March 9, 1899
Fairfield, Ia.	7	March 16	March 8, 1894
Sabula, Ia.	7	March 16	March 9, 1894
Dewitt, Ia.	8	March 26	March 7, 1909
Grinnell, Ia.	5	March 25	March 16, 1889
Sioux City, Ia.	4	April 18	March 22, 1908
Chicago, Ill.	22	March 15	March 6, 1904
Rockford, Ill.	7	March 19	March 4, 1894
Milford, Wis.	5	March 15	March 10, 1850
Madison, Wis.	8	March 18	March 11, 1894
Milwaukee, Wis.	10	March 22	March 11, 1889
La Crosse, Wis.	6	March 23	March 18, 1905
Stevens Point, Wis.	4	April 2	March 9, 1895
Lanesboro, Minn.	8	April 2	March 17, 1889
Minneapolis, Minn.	8	April 4	March 18, 1889
Elk River, Minn.	5	April 7	March 20, 1889
White Earth, Minn.	2	April 17	April 16, 1882
Larimore, N. D. (near)	4	April 9	April 4, 1893
Laramie, Wyo.			April 3, 1897
Columbia Falls, Mont.	2	March 21	March 19, 1896
Great Falls, Mont.	3	April 3	March 27, 1889
Aweme, Manitoba	11	April 17	April 10, 1903
Qu'Appelle, Sask.			April 15, 1904
Flagstaff, Alberta			April 21, 1906
Edmonton, Alberta			April 29, 1901

SPRING MIGRATION

PLACE	Number of years' record	Average date of the last one seen	Latest date of the last one seen
Gainesville, Fla.			March 31, 1887
Chipley, Fla.			April 1, 1904
Cumberland, Ga.			April 10, 1902
Atlanta, Ga.			May 1, 1902
Rising Fawn, Ga.			May 9, 1885
Raleigh, N. C.	5	April 4	April 11, 1890
Weaverville, N. C.	3	April 24	May 5, 1890
Biloxi, Miss.			March 12, 1906
Athens, Tenn.	4	April 24	April 28, 1906
Eubank, Ky.	5	April 12	April 19, 1894
Southern Missouri	3	April 20	April 29, 1903
San Antonio, Tex.			April 6, 1891
Northern Texas	3	April 9	April 23, 1885
Onaga, Kans.	12	April 21	April 28, 1892

FALL MIGRATION

PLACE	Number of years' record	Average date of fall arrival	Earliest date of fall arrival
Onaga, Kans.	9	October 9	October 2, 1902
Bonham, Tex.	3	October 16	October 15, 1888
Eubank, Ky.	7	October 7	October 4, 1887
Athens, Tenn.	5	October 11	October 7, 1904
Southern Missouri	5	October 12	October 2, 1908
Weaverville, N. C.	3	October 8	October 4, 1894
Raleigh, N. C.	13	October 10	October 2, 1894
Frogmore, S. C.			October 22, 1885
Kirkwood, Ga.	5	October 21	October 6, 1898
Northern Florida	3	October 21	October 16, 1904

FALL MIGRATION

PLACE	Number of years' record	Average date of the last one seen	Latest date of the last one seen
Aweme, Manitoba	10	October 15	October 22, 1907
Lanesboro, Minn.	7	November 1	December 18, 1888
Sabula, Ia.	6	October 26	November 5, 1894
Grinnell, Ia.	3	November 4	November 24, 1885
Hillsboro, Ia.	4	November 11	November 20, 1898
Onaga, Kans.	4	November 11	December 6, 1903
Upper Peninsula, Mich.	3	October 15	October 19, 1898
Vicksburg, Mich.	4	November 16	November 25, 1908
Novar, Ontario	3	October 13	October 18, 1894
Plover Mills, Ontario	4	October 14	October 30, 1893
Ottawa, Ontario	15	October 24	November 26, 1885
Galt, Ontario	6	November 17	December 15, 1902
Chicago, Ill.	6	October 27	November 26, 1895
Oberlin, O.	4	November 1	November 26, 1906
Wauseon, O.	4	November 6	November 26, 1892
North River, Prince Edward Island			December 25, 1889

FALL MIGRATION, continued

PLACE	Number of years' record	Average date of the last one seen	Latest date of the last one seen
Eastern Nova Scotia	3	October 17	October 22, 1894
Scotch Lake, N. B.	6	October 27	November 13, 1904
St. John, N. B.	3	November 1	November 17, 1894
Montreal, Canada	8	October 17	October 29, 1895
Southwestern Maine	14	October 29	December 7, 1903
Southern New Hampshire	3	November 5	November 14, 1899
Northern Vermont	5	November 1	November 20, 1906
Eastern Massachusetts	19	October 28	November 13, 1894
West Winfield, N. Y.	6	October 25	November 1, 1901

The "Data in the Biological Survey"

Explanatory note by PROFESSOR COOKE

IT may interest the readers of BIRD-LORE to learn something about the sources of the notes on migration that appear from month to month. The Biological Survey was established twenty-five years ago, and part of its work from the outset has been the accumulating of data on bird distribution and migration. The card system is used and each note is entered on a separate card. At the present time the "data in the Biological Survey" are contained on about four hundred thousand cards of unpublished notes derived principally from the more than two thousand different migration observers who have contributed their reports during these twenty-five years. The remainder is derived from records of museum specimens and from the field notes of the staff of the Biological Survey.

These original notes are supplemented by many published records. The most important ornithological publications have been extracted thoroughly, and many notes gathered from the so-called minor publications. About two hundred thousand cards of published records are now on hand. The notes from 'The Auk' alone required over forty thousand cards.

The Biological Survey, therefore, has about six hundred thousand notes from which to draw for information concerning the distribution and migration of North American birds. It follows that on some of the more common birds the records must be very voluminous. The migration dates given in this number of BIRD-LORE for the Song Sparrow are selected from more than three thousand notes—which, if published in full in the most condensed form, would require more than forty of BIRD-LORE'S pages. The records for Chicago occupy only two lines, one for arrival in spring and the other for departure in the fall, but these dates are selected from 83 records contributed during 26 years by 28 different persons.

Notes on the Plumage of North American Sparrows

SECOND PAPER

By FRANK M. CHAPMAN

(See frontispiece)

Song Sparrow (Fig. 2). The fusing of the spots on the central breast-feathers to make a larger spot or blotch and the pronounced maxillary stripes are the chief distinguishing marks of the eastern Song Sparrow, as well as of practically all the races of Song Sparrow; add to these certain characteristics of voice and manner, and a disposition which usually permits examination at close range, and we have a bird which is generally identified without difficulty.

The sexes are alike, and in view of the exceptional variations shown by this species west of the Rockies, the color of our eastern bird is notably uniform. It is a fact that the country east of the Rockies is in itself comparatively uniform, but nevertheless there are in it areas inhabited by Song Sparrows the climate of which differs more widely than that of regions in the West, each of which has a different race of Song Sparrow.

We have, it is true, a slightly grayer form (*M. m. juddi*) in North Dakota, and specimens resembling this bird are not infrequently found in the Atlantic coast states; but, on the whole, our bird shows but little individual variation

The nestling has the wings and tail like those of the adult, but the body plumage is softer, the streaks are less sharply defined, the breast blotch is wanting, and the plumage is more or less suffused with yellowish buff. It is in this costume that the young birds sing the low, indeterminate, rambling song so unlike the lay of the adult.

As Dr. Dwight has shown, in the paper before referred to, this plumage may be worn for several months, the molt into the winter plumage occurring from August to October. This molt includes all the body feathers, the tail, the tertials and wing-coverts, usually the primaries and rarely the secondaries.

The adult, as is customary, passes from the breeding into winter plumage by a complete molt, and is then indistinguishable from young birds in winter plumage. Winter birds, aside from differences due to wear, have the breast and sides more strongly washed with brownish than do summer specimens. There appears to be no molt in the spring, and the difference between sleek winter specimens and much-bedraggled midsummer ones is due to wear.

The Song Sparrow is the most plastic of North American birds, or, in other words, it is so readily affected in size and color by the climatic conditions under which it lives that, given some slight change in the climate of a region, we expect to find it reflected in the Song Sparrow of that region. Broadly speaking, the general colors of Song Sparrows are related to the rainfall, while their size is related to latitude. Thus, the Song Sparrows of arid regions are pale, while the Song Sparrows of humid regions are dark. Compare, for example, the figure

of the Desert Song Sparrow (Fig. 3) with that of the Sooty Song Sparrow (Fig. 4). The former inhabits the Colorado desert where the annual rainfall averages about six inches; the latter lives on the northwest Pacific coast where the annual rainfall averages over ninety inches.

Again, observe that the Mexican Song Sparrow at the southern extremity of the range of the species (No. 1, on map) is the smallest race, measuring some six inches in length, and that there is a gradual increase in size northward until the maximum is reached at the northern extremity of the range of the species, where the Aleutian Song Sparrow (Fig. 1) attains a length of nearly nine inches.

If we compared only the palest Song Sparrow with the darkest, we might well believe, so unlike are they, that each form represents a distinct species; but when we include in our comparison representatives of all the twenty-three races of Song Sparrows we find complete intergradation in color and in size. Nowhere can one draw the line. As the climatic conditions under which the birds live change, the birds keep pace. Cause and effect go hand in hand. Here we have a species in flower, as it were, a single Song Sparrow stalk with its twenty-three blossoms, any one of which might make an independent growth as a species if it were separated from the parent stem. Doubtless some day the separation will come, when we shall have several species of Song Sparrow, each with its group of races, but at present we have only one species, divided into some twenty-three sub-species or species in process of formation.

A variety of reasons may be advanced to account for the pronounced geographical variations shown by the Song Sparrow. Its wide range indicates physical adaptability and ready adjustment to differences in food and habitat. Its variations in size, while they conform to the general law of increase in size northward, are exceptionally marked, and are not equaled by those of any other North American bird,—a further indication of an inherent plasticity.

The species is comparatively non-migratory. Several races, notably in California, are permanently resident, and a number of contiguous and restricted areas may there be found each to have its own form of Song Sparrow. Such strictly non-migratory species are continuously subjected to the influences of their environment, which are heightened by permanent isolation. But even the most migratory forms come early and stay late, and are thus in the breeding area for a much greater part of the year than, for example, many Warblers which come in May and leave in August.

But, suggest as we may the various factors which appear to be active in producing such geographic variations as the Song Sparrows exhibit, they are not potent with all birds, even when other things are equal, and it seems probable that some species are in an active state of development and readily respond to the influences of their surroundings, while others are fixed and make no such response. The latter represent older types of birds, which are, so to speak, near or a part of the trunk of the bird's family tree, while the former class includes the birds at the terminal branches of this tree.

MAP INDICATING THE DISTRIBUTION OF SONG SPARROWS

1. Mexican Song Sparrow (*Melospiza melodia mexicana*).
2. Michoacan Song Sparrow (*M. m. adusta*).
3. Durango Song Sparrow (*M. m. goldmani*).
4. Mountain Song Sparrow (*M. m. montana*).
5. Eastern Song Sparrow (*M. m. melodia*).
6. Judd's Song Sparrow (*M. m. juddi*).
7. Merrill's Song Sparrow (*M. m. merrilli*).
8. Desert Song Sparrow (*M. m. fallax*).
9. Brown's Song Sparrow (*M. m. rivularis*).
10. San Diego Song Sparrow (*M. m. cooperi*).
11. San Clemente Song Sparrow (*M. m. clementæ*).
12. Santa Barbara Song Sparrow (*M. m. graminea*).
13. Samuel's Song Sparrow (*Melospiza melodi samuelis*).
14. Alameda Song Sparrow (*M. m. pusillula*).
15. Suisun Song Sparrow (*M. m. maxillaris*).
16. Heermann's Song Sparrow (*M. m. heermanni*).
17. Mendocino Song Sparrow (*M. m. cleonensis*).
18. Rusty Song Sparrow (*M. m. morphna*).
19. Sooty Song Sparrow (*M. m. rufina*).
20. Yakutat Song Sparrow (*M. m. caurina*).
21. Kenai Song Sparrow (*M. m. kenaiensis*).
22. Kadiak Song Sparrow (*M. m. insignis.*)
23. Aleutian Song Sparrow (*M. m. sanaka*).

Bird-Lore's Advisory Council

WITH some slight alterations, we reprint below the names and addresses of the ornithologists forming BIRD-LORE's 'Advisory Council,' which were first published in BIRD-LORE for February, 1900.

To those of our readers who are not familiar with the objects of the Council, we may state that it was formed for the purpose of placing students in direct communication with an authority on the bird-life of the region in which they live, to whom they might appeal for information and advice in the many difficulties which beset the isolated worker.

The success of the plan during the nine years that it has been in operation fully equals our expectations; and from both students and members of the Council we have had very gratifying assurances of the happy results attending our efforts to bring the specialist in touch with those who appreciate the opportunity to avail themselves of his wider experience.

It is requested that all letters of inquiry sent to members of the Council be accompanied by a stamped and addressed envelope for use in replying.

NAMES AND ADDRESSES OF MEMBERS OF THE ADVISORY COUNCIL

UNITED STATES AND TERRITORIES

ALASKA.—Dr. C. Hart Merriam, Biological Survey, Dept. of Agr., Washington, D. C.
ARIZONA.—Herbert Brown, Tucson, Ariz.
CALIFORNIA.—Charles A. Keeler, Berkeley, Cal.
CALIFORNIA.—Walter K. Fisher, Palo Alto, Cal.
COLORADO.—Dr. W. H. Bergtold, 1460 Clayton Ave., Denver, Col.
CONNECTICUT.—J. H. Sage, Portland, Conn.
DELAWARE.—C. J. Pennock, Kennett Square, Pa.
DISTRICT OF COLUMBIA.—Dr. C. W. Richmond, U. S. Nat'l. Mus., Washington, D. C.
FLORIDA.—Frank M. Chapman, American Museum Natural History, New York City.
FLORIDA, Western.—R. W. Williams, Jr., Dept. of Agriculture, Washington, D. C.
GEORGIA.—Dr. Eugene Murphy, Augusta, Ga.
ILLINOIS, Northern.—B. T. Gault, Glen Ellyn, Ill.
ILLINOIS, Southern.—Robert Ridgway, U. S. National Museum, Washington, D. C.
INDIANA.—A. W. Butler, State House, Indianapolis, Ind.
INDIAN TERRITORY.—Prof. W. W. Cooke, Biological Survey, Washington, D. C.
IOWA.—C.. R. Keyes, Mt. Vernon, Ia.
KANSAS.—University of Kansas, Lawrence, Kan.
LOUISIANA.—Prof. George E. Beyer, Tulane University, New Orleans, La.
MAINE.—O. W. Knight, Bangor, Me.
MASSACHUSETTS.—William Brewster, Cambridge, Mass.
MICHIGAN.—Prof. W. B. Barrows, Agricultural College, Mich.
MINNESOTA.—Dr. T. S. Roberts, 1603 Fourth Avenue, South, Minneapolis, Minn.
MISSISSIPPI.—Andrew Allison, Ellisville, Miss.
MISSOURI.—O. Widmann, 5105 Morgan St., St. Louis, Mo.
MONTANA.—Prof. J. M. Elrod, University of Montana, Missoula, Mont.
NEBRASKA.—Dr. R. H. Walcott, University of Nebraska, Lincoln, Neb.
NEVADA.—Dr. A. K. Fisher, Biological Survey, Dept. of Agr., Washington, D. C.

New Hampshire.—Dr. G. M. Allen, Boston Soc. Nat. Hist., Boston.
New Jersey, Northern.—Frank M. Chapman, Am. Mus. Nat. History, New York City.
New Jersey, Southern.—Witmer Stone, Academy Natural Sciences, Philadelphia, Pa.
New Mexico.—Dr. A. K. Fisher, Biological Survey, Dept. of Agr., Washington, D. C.
New York, Eastern.—Dr. A. K. Fisher, Biological Survey, Washington, D. C.
New York, Northern.—Egbert Bagg, 191 Genesee Street, Utica, N. Y.
New York, Western.—E. H. Eaton, Canandaigua, N. Y.
New York, Long Island.—William Dutcher, 141 Broadway, New York City.
North Dakota.—Prof. O. G. Libby, University, N. D.
North Carolina.—Prof. T. G. Pearson, Greensboro, N. C.
Ohio.—Prof. Lynds Jones, Oberlin College, Oberlin, Ohio.
Oklahoma.—Dr. A. K. Fisher, Biological Survey, Dept. of Agr., Washington, D. C.
Oregon.—W. L. Finley, Milwaukee, Ore.
Pennsylvania, Eastern.—Witmer Stone, Acad. Nat. Sciences, Philadelphia, Pa.
Pennsylvania, Western.—W. Clyde Todd, Carnegie Museum, Pittsburgh, Pa.
Rhode Island.—H. S. Hathaway, Box 498, Providence, R. I.
South Carolina.—Dr. Eugene Murphy, Augusta, Ga.
Texas.—H. P. Attwater, Houston, Tex.
Utah.—Prof. Marcus E. Jones, Salt Lake City, Utah.
Vermont.—Prof. G. H. Perkins, Burlington, Vt.
Virginia.—Dr. W. C. Rives, 1723 I Street, Washington, D. C.
Washington.—Samuel F. Rathburn, Seattle, Wash.
West Virginia.—Dr. W. C. Rives, 1723 I Street, Washington, D. C.
Wisconsin.—H. L. Ward, Public Museum, Milwaukee, Wis.

CANADA

Alberta.—G. F. Dippie, Calgary, Alta.
British Columbia, Western.—Francis Kermode, Provincial Museum, Victoria, B. C
British Columbia, Eastern.—Allan Brooks, Okanagan Landing, B. C.
Manitoba.—Ernest Thompson Seton, Cos Cob, Conn.
Nova Scotia.—Harry Piers, Provincial Museum, Halifax, N. S.
Ontario, Eastern.—James H. Fleming, 267 Rusholme Road, Toronto. Ont.
Ontario, Western.—E. W. Saunders, London, Ont.
Quebec.—E. D. Wintle, 189 St James Street, Montreal, Can.

MEXICO

E. W. Nelson, Biological Survey, Department of Agriculture, Washington, D C.

WEST INDIES

C. B. Cory, Field Museum, Chicago, Ill.

GREAT BRITAIN

Clinton G. Abbott, 153 West 73d St., New York City, N. Y.

Notes from Field and Study

A Semi-domesticated Warbler

Some time in October, 1909, a Myrtle Warbler flew into the Union Station, in Washington, D. C., and took up its abode in the drug store which occupies a small room at one corner of the large waiting-room. Here it remained for over a month, spending most of its time on top of the high cases which occupy the sides of the room, but flying freely about on the counters, and showing no fear of the people in the store. Its food seemed to be chiefly house-flies, which it caught with great dexterity, and it frequently drank of the various beverages which were spilled on the soda fountain. In one instance, it was said to have been made 'drunk' by over indulgence, and, falling into a tub of water, would have drowned had it not been promptly rescued.

On November 20, in company with Mr. W. R. Maxon (who had brought the case to my attention), I visited the station, and found the bird to be active and gentle, as described. On November 25 it died naturally, and I secured the skin for my collection. The bird was an adult female, in dull plumage.—Arthur H. Howell, *Washington, D. C.*

A Prothonotary Warbler in Wellesley, Mass.

On June 2, 1909, I had the good fortune to see a fine specimen of this beautiful Warbler on the Wellesley College grounds. He was, apparently, a male, and was in mature and brilliant plumage and full song.

I was attracted by hearing a new note among the familiar songs that fill the air on a June day. As I happened to be occupied with a piece of writing which must be finished at a certain hour, I tried to ignore the song; but it was so near and so insistent that I threw my writing aside and started in pursuit. In shorter time than it takes to tell it, I had the bird under observation and, saw that he was indeed a stranger. He was in a very vivacious mood, and some of his movements can only be described as antics.

He had a sharp tilt or two with a pair of Phœbes that had a nest near. One of the best views I had of him was when he set about examining one of the college houses. (Wood Cottage). He went into the broad piazza and perched on the backs of several of the chairs, investigated trellises, blinds and window-sills, then went to the edge of the roof and into the gutter, where he drank, and caught and ate a moth. His rapid changes from one pose to another afforded a good view of him from every angle above and below, and his rich yellow showed to fine advantage against the dark background of the house.

In all, I stayed with him for about half an hour. In the meantime I had run back to the house for opera-glass and bird-books and found that he corresponded exactly to the description of *Protonotaria citrea;* but the extreme rarity of that bird in this region filled me at once with doubt and excitement.

I called a friend, who is an excellent observer of wide experience, and, although she looked incredulous and even dubious when I breathlessly said "Prothonotary," she came out and agreed in my judgment.

Later, I consulted the college collection of mounted specimens, and found that my bird coincided in every particular with the one in the collection, except that he looked to me a trifle larger and was in more brilliant feather.—Angie Clara Chapin.

Wren and Sparrow

Four years ago I nailed an oil-can under the gable end of a small building near the house, the bottom of the can flat against the building. The can was the sort with a cork-fitted opening, with handle that served as a door-step for the Wrens that took up housekeeping in it. I have no way of knowing that the same Wrens have

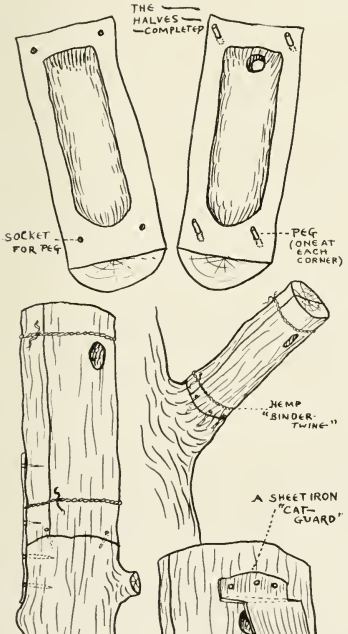
occupied it every year, but think they have, for I do not think any others would occupy an old nest. However, I am not sure on that point.

From the first, it has been an object of envy to the English Sparrows. The opening in the can being too small for their entrance, they collect on top and try to oppose the Wrens going in and out. With cheerfulness of song and manner, the Wrens succeeded in raising two broods each summer.

One day the Sparrow opposed the male Wren from going in to feed the young birds, when it put up a fight, or a show of one, and dropped its food; that which I found in the grass was part of a grasshopper. But the Wren sang a song of defiance from the sweet-pea trellis.

With my watch in hand, I timed the Wren in his songs. He sang ten to a minute; that would be six hundred songs in an hour, if he kept it up. Allowing fourteen hours out of the twenty-four for sleep and family duties, there are at least ten hours devoted to vocal exercise.

One evening, at dusk, I heard a sleepy little song coming from the can, a lullaby to the young birds, or a serenade to Jenny Wren.—E. I. Metcalf, *Minneapolis, Minn.*



DESIGN FOR A COMMON-SENSE BIRD BOX

A Common-sense Bird-box

The chief merit of the 'nesting-site' shown in these cuts lies in the fact that it is not a human invention; it is simply a copy from nature. By the way, is it not a little surprising that, with so many inventions of elaborate 'houses' (properly so called) for Martins, Swallows and Wrens, no one seems to have offered, as yet, new plans and specifications for sites for Orioles and Hummingbirds?

If you cannot lay hold of a good deserted Woodpecker's burrow, just get a stick of stove-wood from the shed, or a fallen branch from the nearest grove, drill an auger hole an inch deep *near one end* of it, split the stick with an axe, gouge out a hollow in the cleft surface of each half (see diagram) until the auger hole comes through, nail them together again and your site is complete; you have simply been your own Woodpecker.

For Martins, the 'stick' should be about twenty inches long, eight in diameter, with the entrance about two and one-fourth inches across. For Tree Swallows, Bluebirds, Nuthatches and Wrens the length should be about 18 inches, the diameter 6 inches, and the opening as follows: Tree Swallows, $1\frac{3}{4}$; Bluebird, $1\frac{5}{8}$; Nuthatch, $1\frac{1}{2}$; Wren, $1\frac{1}{8}$ inches, respectively, the dimensions should be as follows, in the order given above for Martins: 18 (about) x 6, entrance, $1\frac{3}{4}$ inches; 18 (about) x 6, entrance, $1\frac{5}{8}$ inches; 18 (about) x 6, entrance

1½ inches; 18 (about) x 5, entrance · 1⅛ inches.—Edmund J. Sawyer, *Black River, N. Y.*

A New Bird Club

The "Bird Lovers' Club of Brooklyn" has recently been organized. It meets monthly at the homes of the several members. For the ensuing year, the following officers have been elected: President, Edward Fleischer; Vice-president, Mrs. Charles S. Hartwell; Secretary–Treasurer, Dr. E. W. Vietor. Those interested may communicate with the secretary at 166 St. James Place.

Starlings at Amherst, Mass.

On December 27, 1909, I saw a flock of seven Starlings (*Sturnus vulgaris*) at Long Lea Farm, Amherst, Massachusetts. So far as I, or my bird-loving friends at Long Lea know, that is the first record in that locality. Until my return to New York on January 19, I saw the birds frequently. On one occasion there must have been three or four dozen in the flock; but, as they were flying, it was impossible to be accurate as to the number. On January 18, there were seventeen of them near the house, feeding on a bare patch in a field which was, on other occasions, the happy hunting-ground of flocks of Snow Buntings and of Tree Sparrows.—Lilian Gillette Cook, *New York City.*

Prospect Park Notes

A November Oriole.—I wish to report the occurrence of an adult male Baltimore Oriole in Prospect Park, Brooklyn, N. Y., on November 25, 1909. The bird was apparently uninjured, but seemed much distressed by the cold, ruffling its feathers until it was almost as round as a ball. A light snow was falling at the time, and the temperature was several degrees below the freezing point.

Northern Shrike.—A Shrike spent all of February, 1909, and the greater part of March in the park, and wrought great havoc among the birds wintering there.

Pine Siskin.—Siskins were very common in Prospect Park last winter. They were first observed by Dr. Vietor on November 1, 1908, and the last one was seen on May 11, 1909. On January 9, I counted over a hundred in a single flock.

European Chaffinch.—A bird of this species was observed by Mrs. Vietor on January 8, 1909. I saw it on the 10th and 11th of that month. On both occasions it was feeding with English Sparrows, but kept on unconcernedly after its companions had been frightened away at my approach. It was probably one of the Central Park Chaffinches that had gotten the '*wanderlust.*'

Besides the above-mentioned birds, a Hermit Thrush and two Fox Sparrows spent all of last winter (1908–9) in the park. A Carolina Wren was observed until February 1 and again in March. I saw American Crossbills from March 5 to 14, forty individuals being the largest number observed in one day. On November 25, I saw a flock of thirty-four Canada Geese flying over the park. On the same date I saw the Oriole, a Carolina Wren, a Woodcock and twelve other species were noted. This and May 15, when I counted forty-seven species, were my two 'best days' for the year. On Nov. 26 and 27, a Long-eared Owl sat moping in a spruce tree, but he has apparently gone to pastures new.

During the year, I made ninety-six visits to the park, and observed ninety-seven species. — Edward Fleischer, *Brooklyn, N. Y.*

Brewster's Warbler at Waterbury, Conn.

On May 9, 1909, I saw a bird in a bramble thicket answering the description of Brewster's Warbler. The description, taken down at the time, is: Forehead and crown yellow, approaching orange; black line from bill passing through eye; rest of upper parts slaty or bluish gray; tail about same color as back; under parts grayish white, with slight tinge of yellow on breast; greater and middle wing coverts yellow.

It was not shy at all, as I was able to approach to within ten feet of it. A Blue winged Warbler, nearby, seemed to be in company with it. — NORMAN B. PILLIRY, *Waterbury, Conn.*

A Successful Martin Colony

I send another photograph (See BIRD-LORE, March–April, 1909) of my Martin colony, which was taken during the mating period of 1909, and shows its growth from one pair four years ago. The house figured was built, during leisure time, from poplar and pine, and is divided into twelve compartments, the entrances being spaced as far apart as possible with separate perches, to prevent quarreling. The first Martin to arrive last spring was a male, during the first week in April. When first seen, he was sitting on the post that supported the house the year before, evidently waiting for the house to be erected, as he flew into it the moment it was raised. Others came later and, by the first week in May, the twelve compartments were all occupied. Nesting commenced during the second week in May, and by July 15 the young had all flown. They numbered nearly forty. To demonstrate the extreme usefulness of these birds as insect-destroyers, one needs only to inspect their abode after the young have flown out, to see the mass of shells and wings left from the insects fed to the young.— JAS. S. BECKER, *Clyde, Ohio.*

A SUCCESSFUL MARTIN COLONY
Photographed by J. S. Becker, Clyde, Ohio

Our Duty to Our Bird Tenants

In your July–August, 1909, issue, I note a letter from a Chicago bird-lover, "Our duty to our bird tenants," that leads me to express to you the facts that have presented themselves in our locality. We had plenty of birds in our suburb, and a small garden producing well. A few new neighbors arrived, each with a pet cat. That was two years ago. We have now six cats that visit our garden regularly, among them a big black bird cat. One cat has five black-kittens now mature, and there are other kittens growing up. Last summer half the birds were no more. This year we hardly had a bird left and quite a number had stopped migrating in the spring. The consequence is that I never knew there could be so many kinds of destructive worms and bugs to the square foot. Our ground is the same, the care the same, the climate unchanged, and we have plenty of water. The flowers and vegetables were poor and about a failure, as the bugs and worms had to be fought on everything.

We license dogs as a public

nuisance, and do a lot of writing about how to be kind to and cultivate birds, and then calmly overlook the basis of all the trouble, the neighborhood cat legion. Don't think I dislike cats, as I am really fond of all animals. But there are so many advantages we may not enjoy, on account of one destructive element being entirely ignored and uncontrolled, that the time has arrived to recognize this matter and give it due attention.

No one individual is strong enough to carry out any reform, but an organization could do much, with the coöperation of persons interested in gardens of small size. And I venture to say the small-garden proprietors would make a formidable list from towns and cities all over the country. As a practical citizen, I appeal to the Audubon Society for assistance in organizing some sensible and far-reaching plan that we may urge upon the officers of each community, for the limiting of the destruction of birds by cats, and the consequent failure of the gardens subsequent to the absence of our feathered host.—B. Bennett, *Chicago, Ill.*

The Cardinal in Northern New Jersey

It may interest Bird-Lore's readers to know that on Christmas day, 1909, I saw eleven Cardinals, seven males and six females. This is the first time that more than two have been seen in this locality.—Katherine K. Mosle, *Gladstone, N. J.*

A Queer Sparrow Song

One day, while rambling along a creek in this neighborhood, I heard a Song Sparrow sing a few notes, then stop short. Presently he sang again in the same way; soon he did it again. By this time my curiosity was stirred, and I decided to look into the matter. My eye soon caught the Sparrow perched on a sapling twig, repeating his odd little song. This was the method. His voice was clear enough for the first three or four notes; then it suddenly stopped, as if the glottis were completely closed up. But the bird did not cease his efforts when the break occurred. Each time he kept his mandibles apart, shook his head back and forth, and bulged out his throat, trying hard to finish his trill. I watched him till he flew away, and each time he went through the song motions long enough to complete his natural song, even though his voice stopped before it was more than one-third done.—Leander S. Keyser, *Canal Dover, O.*

Vermilion Flycatcher in Sonoma County, Cal.

Vermilion Flycatcher—On July 26, 1909, I saw a Vermilion Flycatcher, catching flies in a wild cherry tree, loaded with ripe fruit.

This bird is a rare visitor in this part of the state, and this is the only one that I have ever seen here.—Violet Wheeler, *Graton, Cal.*

Cardinal Near Buffalo

February 7, 1909, I saw a pair of Cardinals on the Canadian shore about six miles from Buffalo. They were quite tame, and with opera glasses the pink bill, erectile crest and dark lores were easily made out.

February 6 there was a heavy southwest wind. The snow was nearly all gone, but there was ice in the lake for about one mile from shore.—David E. Wheeler, *Buffalo, N. Y.*

Chautauqua Bird Lectures

The Chautauqua Institution has given to Herbert K. Job the appointment to conduct the bird-study classes at their Summer School, Chautauqua, N. Y., and to give some public lectures at the Auditorium. The course will be planned with these special things in view: To prepare teachers to teach bird-study in the schools, to show in detail how to hunt with the camera, and to aid bird-lovers in the outdoor studies of birds. The method will comprise lecture and class work, field excursions, and will use as a text-book Mr. Job's new book just published by The Outing Publishing Company, New York, —"How to Study Birds." Accessions to this Course will be welcomed, and the place and region are delightful.

Book News and Reviews

Report on the Immigrations of British Summer Residents in the Spring of 1908, etc. Edited by W. R. Ogilvie-Grant. Bulletin. British Ornithologists' Club, Vol. XXIV. 235 pages, 29 maps. Witherby & Co., 326 High Holborn, London.

This, the Fourth Annual Report of the Committee on bird migration appointed by the British Ornithologists' Club, will be of interest to American readers, both for what it contains as well as for the methods employed in observing and recording.

One is at once impressed with the limited opportunities of the British ornithologist, when compared with those enjoyed by students of bird migration in this country. Not alone is the area over which a bird's journey may be followed smaller, but the migration itself evidently does not begin to attain the proportions which it reaches with us. Thus, only thirty-four species appear on the regular schedule of migration distributed by the Committee. Nevertheless, the special problems presented by an insular station lend to the study of migratory phenomena in Great Britain an exceptional interest. "In the spring of 1908, the main bulk of the birds had not appeared on the 19th of April. On the 20th, however, the immigration commenced in earnest; and on the 26th birds began to pour in, the greatest numbers arriving on the 29th, when no less than twenty-four out of the thirty-four specially recorded species arrived in considerable numbers. During the following ten days the immigration continued, and culminated on the 9th of May in another great influx, including nineteen different species. After that date the migration began to wane, only three species being recorded on the 12th, and a fortnight later it ceased altogether. It will thus be seen that the main tide of immigration in 1908 was of shorter duration than usual, taking place almost entirely between the 26th of April and the 12th of May"—dates, it may be added, which approximately bound the period of most active migration near New York City, some 600 miles south of southern England; a demonstration of the importance of isotherms over degrees of latitude in affecting the distribution of life. —F. M. C.

Wild Life on the Rockies. By Enos A. Mills. Houghton, Mifflin & Co., Boston and New York. 1909. 12mo., viii-262 pages, 25 half-tones from photographs. Price $1.75.

Enos Mills is the John Muir of the Rockies, and every one who knows him will learn with pleasure that he has placed in book form some of the results of his long and loving association with nature in the Rockies; and to those who do not know him we commend these essays as the records of a keen and sympathetic observer, who has established close relations between himself and his environment, the trees and flowers, and wild creatures that inhabit it.

The keynote of Mr. Mills' book is enthusiasm and sincerity. He is more than a nature lover, he is a nature worshiper, and he pays here his tribute to the cliffs and peaks, the trees and animals, with which he has lived on terms of exceptional intimacy.—F. M. C.

Summer Birds of Shaw's Garden. By Otto Widmann. Pages 41-80. Colored frontispiece. Twentieth Annual Report Missouri Botanical Garden. St. Louis. 1909.

Parks are not only often capital places for the study of birds, but they are the only places available to many residents of cities. We trust, therefore, that this pamphlet is available to all visitors to the area of which it treats, for it should do much to arouse and direct their interest in birds. It gives us excellent biographical notes on the 40 species of birds which regularly frequent Shaw's Gardens in summer and presumably breed there, and also treats of six others of less frequent occurrence.—F. M. C.

The Home-Life of a Golden Eagle. Photographed and described by H. B. Macpherson. Witherby & Co., 326 High Holborn, London. 1909. 8vo., 45 pages, 32 mounted half-tones. Price 5 shillings.

This is an ideal demonstration of the possibilities of modern methods of bird study with a camera, in which, prompted primarily by the desire to get pictures, the author built a blind of rocks, turf and heather near a Golden Eagle's eyrie, and from this shelter studied and photographed the birds during the eleven weeks their offspring was in the nest. More than a thousand miles were traveled in going to and from the nest, and often the bitter cold and driving storms which prevailed in the Grampian mountains (where, at an altitude of nearly 3,000 feet, the birds had made their home), during the season in question, would have dismayed almost any one but a genuine bird photographer.

We cannot present here even a résumé of the interesting facts discovered and recorded by Mr. Macpherson, but we unreservedly commend his essay as one of the most fascinating chapters in bird-life with which we are familiar, and quite worthy of comparison with Mr. Finley's study of the California Condor.—F. M. C.

Fauna of New England II. List of the Aves. By Glover M. Allen. Occasional Papers of the Boston Society of Natural History, June, 1909. 8vo., 230 pages.

Thanks to the admirable method of presentation devised by Dr. Allen, we have here not only an annotated list of the birds of New England but also annotated lists of the birds of each of the New England states. After a tabular check-list of New England birds, in which the presence or absence of each species in each state, as well as in the collection of the Boston Society of Natural History, is indicated, the 402 species admitted to the New England list are treated formally, under each being given (1) the A. O. U. scientific name (2) the A. O. U. common name followed by other vernacular names used in New England, (3) reference to the original place of description with the type locality, (4) reference to a colored figure of the bird and its egg, when existing, (5) character of haunts, (6) state headings with status, manner of occurrence, dates of migration and egg-laying of migrant and breeding species. In conclusion, there is a list of 'Species Introduced or Erroneously Accredited.'

In view of the surprisingly large amount of information which Dr. Allen has succeeded in crowding into a limited space, it may seem ungracious to ask for more; but since the plan adopted evidently omits references to the sources whence his local data were obtained, would it not have been well to give, in a bibliographical appendix, titles of at least the lists of birds relating to the states contained in the region in question?—F. M. C.

The Purple Martin and Houses for Its Summer Home. By J. Warren Jacobs. Gleanings No. 5, pages 1-45; First Supplement, pages 46-56. Numerous illustrations. Waynesburg, Pa

Mr. Jacobs may claim to be our leading authority on the ways and wants of the Purple Martin. His 'Story of a Martin Colony' (Gleanings No. 2) was an admirable contribution to the life history of that bird, and he here treats at length of a more practical side of the subject, namely, the construction of Martin houses and establishing of Martin colonies. Various correspondents contribute their experiences in inviting Martins to occupy houses built by Mr. Jacobs, and both pamphlets contain much of value and interest to those who would bring these delightful birds about their homes.—F. M. C.

Bird-Lore

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Devoted to the Study and Protection of Birds
OFFICIAL ORGAN OF THE AUDUBON SOCIETIES
Edited by FRANK M. CHAPMAN
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Bird-Lore's Motto:
A Bird in the Rush is Worth Two in the Hand

WHERE in all the world can one discover in so restricted an area, a wider range of attractions than those which are to be found in that portion of Mexico lying between Vera Cruz and Mexico City? From the moment when one is still thirty miles from land and the snow-capped summit of Orizaba, distant ninety miles, becomes visible, until one reaches the site of Tenochtitlan itself, one's attention is held by a variety of interests which make the trip from coast to tableland an epitome of a journey from the tropic to the temperate zone. If one is in search of supremely beautiful scenery it is here to the full limit of human appreciation. Or if one would test the climates of the world one may go in a day from perpetual summer to everlasting snow and at the same time pass from belts where rain falls almost daily to others where it is exceptional. One may therefore select one's climate and by a few hour's travel, either up or down the mountain slopes, find perfection in climatic conditions throughout the year. With these extremes of temperature and rainfall there is, of course, a corresponding diversity in flora and fauna which makes the region one of surpassing interest to the botanist and zoölogist and particularly to the student of the geographical distribution of life.

For the archæologist there are ruins which evince a higher degree of aboriginal civilization than has been found elsewhere in America, and for the ethnologis tnatives sufficiently isolated to retain their tribal customs and afford problems of fundamental importance, in connecting the present with the past.

The historic period opens with the incomparable romance of Cortez and the Conquistadores and passes through three centuries of Spanish government, the War of Independence, the short-lived Empire of Maximilian, the campaign of Scott, to the astonishing era of development under Diaz. Thus, whether one be a student of nature or of man or merely a traveler in search of the novel and beautiful, this portion of Mexico will appeal to him with a force and fascination which makes a journey through it one of the memorable experiences of a lifetime of travel.

One, however, should journey slowly. The average tourist in his haste to reach the Capital and avoid the, at this season, much overrated heat of the *tierra caliente* rushes through the tropical portion of his route and thus misses the pleasure of an introduction to many new forms of plant-life and some of the most striking scenery between the coast and tableland. To our mind Mt. Orizaba is nowhere so impressive as from the tropical zone at its feet where, surrounded by a flora which suggests equatorial heat, one looks upward to perpetual snow and has at a glance an effective lesson illustrating the influence of temperature on the distribution of life.

The character of the bird-life does not reveal itself so quickly and the American Museum Expedition, of which mention was made in the last issue of BIRD-LORE, is now established at Cordova at the upper limit of the tropical zone (alt. 2,713 feet), whence expeditions will be made toward the coast north and south through the valleys which run parallel with the general trend of the mountains and finally up to the snow line on Mt. Orizaba itself, with the object of ascertaining what at least are the more common birds of the three life-zones which are here represented.—*Cordova, Mexico*, March 10, 1910.

The Audubon Societies

SCHOOL DEPARTMENT

Edited by MABEL OSGOOD WRIGHT

Address all communications to the Editor of the School Department, National Association of Audubon Societies, 141 Broadway, New York City

APRIL—WHAT DO YOU KNOW ABOUT HAWKS?

If you cannot discover new birds in your locality,
try to find something new about the old ones

ONCE more the little marsh frogs are peeping, and the return of the birds is at hand. We shall soon welcome all our familiar friends, but, without neglecting them, let us open eyes and ears and find time either to add to the list or perhaps learn something new about a group of birds of which we may have grown contemptuous through familiarity.

A dozen years ago, bird students thought they knew all there was to be learned about the Robin, Crow, Jay, and other common birds. Then came the improved photography, with its rapid lens and shutter and the focusing glass, wherein a moving object could be seen and caught exactly at the desired moment, and straightway we knew that we had almost everything to learn about the home-life of this living bird, even though scientists had already numbered every bone and feather of the dead ones.

People often have a very good knowledge of the familiar song birds, as well as those of striking plumage; but the so-called Birds of Prey are passed by in bulk, and are merely called Hawks or Owls, as the case may be, with prejudice and a miscellaneous desire to kill lodged against the entire guild.

But there are good Hawks, neutral Hawks and bad Hawks, in the same ratio as there are good and bad people, and the same obtains with the Owls.

The Sharp-shinned Hawk is on the black list, so is Cooper's Hawk and the Goshawk; but the sins of these three should not be let fall on the useful Sparrow Hawk, the devourer of grasshoppers, and other large insects and beetles,—the Marsh Hawk of summer days and the open or partly wooded low meadows,—or the majestic Red-shouldered Hawk, who loves the woods near water where he can put his nest high in a tree, and yet have good frog-hunting near home. This is the Hawk that cries *Kiou! Kiou!* in such a way that its identity by voice is sometimes mixed with that of the Blue Jay, who often has a hard time to prove an *alibi!*

The Red-tailed Hawk, also called Hen Hawk, and decried by the farmer as a harrier of poultry, while a careful analysis of their food has shown that mice, and other mammals, reptiles and insects are by far a larger article of their diet than birds or poultry. Watch a pair of Red-tails circling through the air of an

April day, calling and trimming to the wind; have we any more inspiring sight, anything more suggestive of freedom and joy of flight?

Locate a pair of any one of these four Hawks; do not disturb them, but from a screen of brush or other cover watch their daily life and comings and goings with a good field-glass, and I believe you will soon drop out from the class of people who seize a gun every time the word Hawk is mentioned.

If you wish three months of bird *vaudeville*, I commend you to watch a family of Screech Owls, if you can by any chance locate one. From the moment the nestlings are hatched and visible at the nest-hole (they remain a long time in the nest) until their parents have, in late summer, completed their training in all the flying tactics known to these little birds of wisdom, with much snapping of beaks and warning cries of "*Shay-shay-shay!*" these are of incomparable interest, and furnish unexpected amusement to those who do not know.

Screech Owls are early birds and begin to nest in early April, as do also the Red-tailed and Red-shouldered Hawks; so 'watch out' lest the season slip away before you locate your family. M O W

THE BIRDS' WORLD

"I lived first in a little house,
And lived there very well;
I tho't the world was small and round,
And made of pale blue shell.

"I lived next in a little nest,
Nor needed any other;
I tho't the world was made of straw,
And brooded by my mother.

"One day I fluttered from the nest,
To see what I could find;
I said 'The world is made of leaves,
I have been very blind.'

"At length I flew beyond the tree,
Quite fit for grown-up labors;
I don't know how the world is made,
And neither do my neighbors."

—*Anon*

THE RED-HEADED WOODPECKER

By FLORENCE MERRIAM BAILEY

The National Association of Audubon Societies

EDUCATIONAL LEAFLET NO. 43

The Woodpeckers are a band of foresters most of whom spend their lives saving trees. Many of them do their work hidden in the dark forests, but the Redheads hunt largely out in plain sight of passers-by. Why? Because, while they devour enough enemies of the trees to deserve the name of foresters, they are particularly fond of vegetable foods and large beetles found in the open.

Watch one of the handsome Red-headed birds on a fence. Down he drops to pick up an ant or a grasshopper from the ground; then up he shoots to catch a wasp or beetle in the air. Nor does he stop with fly-catching. Nutting—beechnutting—is one of his favorite pastimes; while berries, fruits, and seeds are all to his taste. If, in his appreciation of the good things that man offers, the Redhead on rare occasions takes a bit more cultivated fruit or berries than his rightful share, his attention should be diverted by planting some of his favorite wild fruits, such as dogwood, mulberry, elderberry, chokecherry, or wild black cherry.

But, in judging of what is a bird's fair share of man's crops, many things should be considered. Food is bought for the Canary and other house pets; and many people who do not care for caged pets buy food for the wild birds summer and winter, to bring them to their houses. Flowers cost something, too. But without birds and flowers, what would the country be? Before raising his hand against a bird, a man should think of many things. A man who is unfair to a bird is unfair to himself.

Feeding Habits

It would be a stingy man, indeed, who would begrudge the Woodpeckers their acorns and beechnuts. While the leaves are still green on the trees, the Redheads discover the beechnuts and go to work. "It is a truly beautiful sight," Dr. Merriam says, "to watch these magnificent birds creeping about after the manner of Warblers, among the small branches and twigs, which bend low with their weight, while picking and husking the tender nuts."

The nuts are not always eaten on the spot, for, like their famous California cousins, the Redheads store up food for winter use. All sorts of odd nooks and crannies serve the Redheads for storehouses—knot-holes, pockets under patches of raised bark, cracks between shingles and in fences, and even railroad ties. Sometimes, instead of nuts, grasshoppers and other eatables are put away in storage. The wise birds at times make real caches, concealing their stores by hammering down pieces of wood or bark over them.

Beechnuts are such a large part of the fall and winter food of the Redheads

RED-HEADED WOODPECKER

Order—Pici | Family—Picidæ

Genus—Melanerpes | Species—Erythrocephalus

in some localities that, like the gray squirrels, the birds are common in good beechnut winters and absent in others. Cold and snow do not trouble them, if they have plenty to eat, for, as Major Bendire says, many of them "winter along our northern border, in certain years, when they can find an abundant supply of food." In fact, in the greater part of the eastern states the Redhead is "a rather regular resident," but in the western part of its range "it appears to migrate pretty regularly," so that it is rare to see one "north of latitude 40°, in winter." The western boundary of the Redhead's range is the Rocky Mountains, but east of the mountains it breeds from Manitoba and northern New York south to the Gulf of Mexico; though it is a rare bird in eastern New England.

Migration

In sections where this erratic Woodpecker migrates, it leaves its nesting-grounds early in October, and returns the latter part of April or the beginning of May. Before too much taken up with the serious business of life, the Redhead goes gaily about, as Major Bendire says, "frolicking and playing hide-and-seek with its mate, and when not so engaged, amusing itself by drumming on some resonant dead limb, or on the roof and sides of houses, barns, etc." For, though like other drummers, the Woodpeckers are not found in the front ranks of the orchestra, they beat a royal tattoo that may well express many fine feelings.

When the musical spring holiday is over and the birds have chosen a tree for the nest, they hew out a pocket in a trunk or branch, anywhere from eight to eighty feet from the ground. When the young hatch, there comes a happy day for the looker-on who, by kind intent and unobtrusive way, has earned the right to watch the lovely birds flying back and forth, caring for their brood.

Nest

And then, at last, come the days when the gray-headed youngsters, from hanging out of the window, boldly open their wings and launch into the air. Anxious times these are for old birds,—times when the watcher's admiration may be roused by heroic deeds of parental love; for many a parent bird fairly flaunts in the face of the enemy, as if trying to say, "Kill me; spare my young!"

One family of Redheads once gave me a delightful three weeks. When the old birds were first discovered, one was on a stub in a meadow. When joined by its mate, as the farmer was coming with oxen and hayrack to take up the rows of haycocks that led down the field, the pair flew slowly ahead along a line of locusts, pecking quietly at the bark of each tree before flying on. At the foot of the meadow they flew over to a small grove in the adjoining pasture.

As it was July, it was easy to draw conclusions. And when I went to the grove to investigate, the pair were so much alarmed that they at once corroborated my conclusions. Did I mean harm? Why had I come? One of them leaned far down across a dead limb and inspected me, rattling and bowing nervously; the other stationed itself on the back of a branch over which it peered at me with one eye. Both of them cried *krit'-tar-rah* every time I ventured to take a step. As they positively would not commit themselves as to which one

of the many Woodpecker holes in sight belonged to them I had to make a tour of the grove.

On its edge was a promising old stub with a number of big, round holes and, picking up a stick, I rapped on the trunk. Both birds were over my head in an instant, rattling and scolding till you would have thought I had come to chop down the tree and carry off the young before their eyes. I felt injured, but having found the nest could afford to watch from a distance.

It was not long before the old birds began feeding their young. They would fly to the stub and stand under the nest while rousing the brood by rattling into the hole, which had the odd effect of muffling their voices. When, as they flew back and forth a Yellow-hammer stopped in passing, they drove him off in a hurry. They wanted that grove to themselves.

On my next visits, if, in spite of many precautions, they discovered me, they flew to dead tree tops to watch me, or startled me by an angry *quarr' quarr' quarr'* over my head. When they found that I made no attempt to go near the nest, however, they finally put up with me and went about their business.

After being at the nest together they would often fly off in opposite directions, to hunt on different beats. If one hunted in the grove, the other would go out to the rail fence. A high maple was a favorite lookout and hunting-ground for the one who stayed in the grove, and cracks in the bark afforded good places to wedge insects into. The bird who hunted on the fence, if suspecting a grub in a rail, would stand as motionless as a Robin on the grass, apparently listening; but when the right moment came would drill down rapidly and spear the grub. If an insect passed that way the Redhead would make a sally into the air for it, sometimes shooting straight up for fifteen or twenty feet and coming down almost as straight; at others flying out and back in an ellipse, horizontally or obliquely up in the air or down over the ground. But oftener than all, perhaps, it flew down onto the ground to pick up something which its sharp eyes had discovered there. Once it brought up some insect, hit it against the rail, gave a business-like hop and flew off to feed its young.

The young left the nest between my visits, but when, chancing to focus my glass on a passing Woodpecker I discovered that its head was gray instead of red, I knew for a certainty what had happened. The fledgling seemed already much at home on its wings. It flew out into the air, caught a white miller and went back to the tree with it, shaking it and then rapping it vigorously against a branch before venturing to swallow it. When the youngster flew, I followed, rousing a Robin who made such an outcry that one of the old Redheads flew over in alarm. "*Kik-a-rik, kik-a-rik,*" it cried as it hurried from tree to tree, trying to keep an eye on me while looking for the youngster. Neither of us could find it for some time, but after looking in vain over the west side of a big tree I rounded the trunk and found it calmly sitting on a branch on the east side—which goes to prove that it is never safe to say a Woodpecker isn't on a tree, till you have seen both sides!

The old Redhead found the lost fledgling about the time that I did and flew over to it with what looked like a big grub. At the delectable sight, the youngster dropped all its airs of independence, and with weak infantile cries turned and opened wide its bill!

Two days later I found two birds that may have been father and son, on the side of a flagpole, out in the big world together. The old bird's head glowed crimson in the strong sunlight, and it was fortunate indeed that only friends were by.

The striking tricolor makes the Redheads such good targets that they are in especial danger from human enemies and need loyal, valiant defenders wherever they live. And what a privilege it is to have birds of such interesting habits and beautiful plumage in your neighborhood! How the long country roads are enlivened, how the green fields are lit up, as one of the brilliant birds rises from a fence-post and flies over them! In the city, it is rare good luck, indeed, to have a pair nest in an oak where you can watch them; and even a passing glimpse or an occasional visit is something to be thankful for.

"There's the Redhead!" you exclaim exultantly, when a loud tattoo beats on your city roof in spring. And "There's the Redhead!" you cry with delight, as a soft *kikarik* comes from a leafless oak you are passing in winter; and the city street, so dull and uninteresting before, is suddenly illumined by the sight.

Questions for Teachers and Students

What is Conservation? How do Woodpeckers help the United States in the Conservation of its forests? What do Red-headed Woodpeckers eat? Is there enough wild food for birds in your neighborhood? Why do people feed birds? What is it to play fair? To be just to birds? How about the golden goose? What nuts have you seen Redheads eat? Do Woodpeckers and Squirrels quarrel over nuts? Where have you seen Redheads store beechnuts? What is a cache? What birds and animals cache food? What have you found cached in the woods? How do Redheads open beechnuts? Acorns? What can the old hunters tell you about good nut or acorn winters and Redheads? If the Woodpeckers go south in winter, where you live, at what times do they go and return? What different calls have the Redheads? Have you ever heard a Tree-toad answer one by mistake? What are the Redheads' favorite drumming-places? Where do the Woodpeckers nest near you? Do both old birds brood the eggs and feed the young? Do they feed by regurgitation? How long do the old birds feed the young after they leave the nest? Do the old birds use the same nest year after year? Why? How far can a Woodpecker see an insect? Are the Redheads' colors always conspicuous? Why? Does their color pattern make them more or less conspicuous? Draw the flight of a Redhead fly-catching. Draw his position in hunting. Why is it particularly interesting to have Redheads in your neighborhood? How can you prevent their being killed?

The Audubon Societies

EXECUTIVE DEPARTMENT

Edited by WILLIAM DUTCHER

Address all correspondence, and send all remittances for dues and contributions to the National Association of Audubon Societies, 141 Broadway, New York City

Bird Slaughter in the Pacific Islands

In the February number of BIRD-LORE, a short announcement was made of the capture of Japanese poachers on the Hawaiian Islands Reservation. The Association has just received from its resident representative in Honolulu, Mr. William Alanson Bryan, the following detailed account of the work of the poachers. There is no doubt whatever but that these poachers were working in the interest of the millinery trade, and the horrors of this wholesale slaughter show the absolute necessity for an international agreement between the world powers to prevent work of this character. Until such an agreement is entered into, such incidents as the present are sure to be repeated.

It is intended that this Association shall have a representative at the International Ornithological Congress, which will commence in Berlin on May 30, when it is hoped that the section devoted to bird protection will take up this very important matter, and that a committee will be formed to present to the world powers the need for international bird protection, especially with the view of prohibiting the use of the plumage of all wild birds for millinery or other ornaments.

The Thetis Arrives with Japanese Poachers*

Twenty-three Captured at Laysan

After completing a cruise of the outlying bird islands and reefs, covering a period of several weeks, the United States revenue cutter, Thetis, under command of Captain W. V. E. Jacobs, arrived in the harbor this morning and anchored in the stream, pending a settlement of the matter of a disposition of her valuable cargo, including 259,000 bird skins and wings, two and a half tons of baled feathers, and several large cases and boxes of stuffed birds.

The Thetis gathered in a party of twenty-three Japanese poachers at Laysan and Lysiansky Islands, the former scene of operations of "Admiral" Max Schlemmer, the one-time King of Laysan Island.

The Japanese took their arrest philosophically, and, when confronted with the Federal officers of the law, they maintained a broad grin and to all intents and purposes enjoyed the experience.

The captured poachers will be prosecuted under provisions of the Federal laws against poaching, which call for a maximum penalty of six months' imprisonment and the assessment of a fine of $500.

That the men are the employes of a *hui*, which is believed to have a local connection, as well as headquarters in Japan, is borne out by the statements of several of the Japanese who have been brought to Honolulu. While they will not divulge the name or names of parties in the Hawaiian Islands who are alleged as being financially interested in the systmatic bird-poaching operations upon the neighboring islands, they do say that they have been in the service of a Japanese company, with headquarters at Tokio, who placed them on a small schooner and, after an extended passage, landed a portion of the party at Laysan, while the others continued the voyage to Lysiansky. They declare that they were given ample provisions for a stay of a year or more.

*Reprinted from the Evening Bulletin, February 2, 1910. Honolulu, Territory of Hawaii.

They were told that a Japanese schooner would call for them some time along about April, 1910. They were instructed by the agents before leaving to have their bird-skins prepared for shipment by this time.

In killing the birds, the Japanese say that they used sticks, and after dead, by the aid of knives, removed the skins and secured the plumage. In other instances, the birds were either killed or stunned by knocking their heads against the sand.

One of the Japanese was identified as a laborer who not very long ago was one of a party engaged upon Laysan or Lysiansky Island, at the time when guano was being taken from these islands.

The identification, however, was made by one who had recently visited Midway, and was there shown a picture taken on Laysan Island, in which it is claimed one of the captured Japanese then figured.

The matter of complicity will, however-be threshed out in the courts,

The Thetis was unable to make fast time because of much bad weather. Captain Jacobs, however, was highly pleased over the success of the cruise. He spoke at considerable length to visiting newspaper men this morning.

Bird Island was the first stop made by the Thetis. This lonely spot in the Pacific was found inaccessible, though it was the nearest to the Hawaiian group. At this season of the year, but very few birds were found there or hovering over the rock. It was found impossible to land upon the rock, owing to the strong northeast gales and heavy swells, the surf dashing high against a sheer precipice two hundred feet in height.

The Thetis, after cruising about Bird Island, and her officers seeing no evidences of human beings upon the lonely rock, then proceeded to Neckar Island, where the revenue cutter made a stop; but it was discovered that there were no more birds there.

Bad weather prevented a landing being made at Neckar Island, owing to the strong northeasterly gales which prevailed, with heavy seas.

The little revenue cutter then steamed westward, and the next sighted was Gardiner Island. This was also inaccessible, it being wholly of rock formation and rising out of the sea to a height of about two hundred feet, and having a diameter of nearly two hundred feet. A few albatrosses were noted hovering around the rock, but to land a boat there was entirely out of the question. Captain Jacobs was of the opinion that about the only way that a human being could visit this isolated spot would be by swimming through a raging surf.

Laysan Island was the next mid-Pacific islet visited by the Thetis. It was here that the first seizure of bird plumage was made, and the greater number of Japanese poachers were found. The bird skins were confiscated, and the Japanese placed under arrest.

The first signs of civilization discovered at Laysan, as the Thetis came to anchor, was an American flag which was seen flying from the upper part of a small water-tower or lookout station. Though a high sea was running at the time, a boat was sent from the Thetis, in command of an officer with a crew of picked and armed men, and a landing was effected. The officer was instructed by Captain Jacobs to learn the number of men upon the island, and the Thetis officers were also directed to secure information concerning the amount of bird skins then on the island.

The Thetis men rounded up fifteen Japanese on Laysan, and these were occupying thirteen buildings and shacks. In some of the buildings was found a large quantity of bird skins and plumage. It was on this island that two small sampans were found. The little craft were evidently used in taking the men from the Japanese schooner to the island. According to the statement from the Thetis officers, it would be impossible for the Japanese to have made any distance at sea in such small vessels. In the possession of several of the Japanese were documents purporting to have been given them from local people, in which they were author-

ized to land on Laysan Island and conduct a business of securing bird plumage.

The fifteen Japanese who were discovered at Laysan Island were informed that their acts were in direct violation of the Federal laws. They submitted peaceably to the mandate of Captain Jacobs that they were under arrest, and offered no resistance whatever when told to prepare for going on board the Thetis. It required two days to transfer the Japanese poachers, their personal effects, and bales and boxes of plumage to the revenue cutter. The Japanese were well provisioned. Six of the men claim to have been residents of the island since last April. Nine declared that they had arrived at Laysan last August, being landed there from the Japanese schooner Tempou Maru, which is believed to have sailed from Tokio or Yokohama. They were told by the officers in charge of the big bird *hui* in Japan that a schooner would be sent for them in April, 1910. The men are, to all intents and purposes, mere tools in the employ of the Japanese company which is carrying on the work of gathering bird-skins in the Pacific Ocean. They offered no objections to accompanying the American officers to the revenue cutter.

The confiscation on Laysan included a lot of bird skins which were undergoing a process of curing. These were laid under several hundred large Japanese mats. The mats were held down by rocks in order to prevent the skins from being damaged by the wind or the weather. These skins were found impossible to transfer to the Thetis, it being conceded that to bring them to the vessel might cause sickness, as many were in a state of putrefaction. After the dried and cured plumage and skins were taken on board, Captain Jacobs took steps to destroy the skins in process of curing. This was successfully accomplished.

Lysiansky Island yielded eight Japanese poachers and a large quantity of dried skins. The plumage found on this island was practically all in a cured state and ready for shipment. A great portion of the booty was baled, and evidently prepared to be loaded aboard the first Japanese schooner to arrive. One officer and an armed crew was sent ashore, and the eight Japanese offered no resistance to accompanying the party back to the Thetis. The poachers had been occupying four buildings. They had an abundance of provisions, and in several of the rude shelters which had been erected upon the island were found large numbers of skins and feathers. It was here that the Thetis officers found several cases of stuffed birds.

On both Laysan and Lysiansky islands, the Japanese were in possession of a reproduction of an order issued through the President of the United States some years ago, which made it a crime against the Federal statutes for any one to kill birds on the mid-Pacific islands or engage in the business of poaching or gathering skins. It was upon the provisions of this order, which was translated to the Japanese found there, that the arrests were made by the Thetis officers.

The Thetis officers having completed their labors at Lysiansky, the revenue cutter then proceeded to Pearl or Hermes Reefs. The presence of small or calf seals was first found at this spot. The presence of a large number of birds was also discovered as the Thetis neared the Hermes Reefs. A boat was sent ashore, but there were no signs of human beings or their habitation on the reefs. The men who manned the boats returned and reported to Captain Jacobs that the young seals were extremely fierce. There had apparently been no depredations from bird hunters on the Hermes Reefs, according to the report brought here by the Thetis.

From Hermes, the Thetis sailed, with the aid of her auxiliary steam plant, to Midway Island. Captain Jacobs here got into communication with the authorities at Washington through the Midway cable station.

The Thetis did not remain a great length of time at Midway, but got under way, and Ocean Island was the next mid-Pacific isolation visited by the reve-

nue cutter. While it was impossible to effect a landing upon the deserted sand spit, the vessel went close enough to the island to note that there had been no human habitations upon the spot for quite a period. Many birds were discovered there, and, as one of the Thetis boats neared the shore, a large number of sea-lions were found. No evidences of depredations from poachers were discovered, and the Thetis then resumed her cruise, returning to Midway Island, where she took on mail from the cable station.

In order to make sure that the destruction of the uncured skins left on Laysan had been complete, the Thetis, upon leaving Midway for the last time, called again at Laysan. A visit ashore showed that the skins left there were rendered worthless, and that their destruction had been complete. On Daro, or Dowsett Reefs, which was the next point visited by the cutter, but few birds were found hovering about the island. No attempt was made to effect a landing there but the cutter cruised about the reefs, and several observations were made which satisfied the officers that no poachers had visited the Dowsett reefs recently. A boat was sent ashore when the Thetis arrived off the French Frigate shoals. No birds were found there. The shoals were inaccessible, and no landing was made. On several sand islands near the shoals no sign of human habitation was noted. It was also a noteworthy fact that throughout the tour of the Thetis to the outlying bird islands, the officers failed to note the presence of Japanese fishing craft there. The French Frigate Shoals was the last stop made by the Thetis before returning to Honolulu. The weather from the time of leaving the shoals was very rough. The elements served to retard the progress of the cutter. and she was much delayed by the strong northeasterly winds and seas.

Almost immediately after dropping anchor, the Thetis was visited by a party of Federal and Territorial officers. United States District Attorney Breckons and United States Marshall Hendry were among the first to go aboard, and to take charge of the twenty-three Japanese who were virtually prisoners upon the cutter. The vessel was also boarded by representatives from the customs service, whose duty it will be to take charge of the ten tons or more of confiscated bird plumage. Captain Jacobs estimates that he has secured 259,000 bird wings, besides a number of cases of stuffed birds.

It is possible that the Thetis may be moored alongside one of the wharves today, in order to permit of her discharging the large quantity of plunder.

The disposition of the feathers is a matter which will lie with the Treasury Department officials at Washington. It is understood that the plumage will be destroyed, though it is conceded that the confiscated feathers and skins are of considerable value.

Four small boats found by the officers of the Thetis, two on Laysan and two on Lysiansky, were left there, as they were small, and practically valueless, owing to exposure to the elements.

Saving the Fur-Seal

About four months ago, the Committee on Game Protective Legislation of the Camp-Fire Club of America decided that the fast-vanishing fur-seal needed the assistance of independent citizens. Statistics show that the seal herd has diminished from about 360,000, in 1900, when an official survey was made by the United States Fish Commission, to an estimated 30,000, in 1909.

Accordingly, a campaign was inaugurated for the purpose of inducing Congress and the Cabinet to stop the killing of seals on our islands, and to make treaties with foreign governments which would lead to the total suppression of seal-killing at sea, or "pelagic sealing."

The Camp-Fire Club approached the Senate Committee on the Conservation of National Resources, and submitted a resolution providing against the making of a new lease for seal-killing, in place of the

old lease, which expires April, 1910, and also providing for a ten-year close season, during which the seal herds may breed up to a high point. The resolution further called upon the State Department to make treaties with England and Canada, Japan, Russia and Mexico, to prohibit pelagic sealing. In addition to its work with Senator Dixon's Committee, the necessities of the fur-seals' case were brought directly to the attention of President Taft, the Secretary of Commerce and Labor, the Secretary of State, and the United States Commissioner of Fisheries.

As the first result of this campaign, at the close of a hearing on the resolution held at Washington, February 26, 1910, the Senate Committee on the Conservation of National Resources directed its Chairman, Senator Dixon, to represent to the Secretary of Commerce and Labor the undesirability of renewing the lease, or of making a new lease, for the killing of seals on our islands. This decision was reached unanimously. There is every indication that Senator Dixon's committee now fully realizes the gravity of the situation, and the necessity for immediate action of a far-reaching nature.

The National Association stands not only for the conservation of wild birds, but of wild animals, as its name indicates, and the fur-seals are as much our wards as the wild birds. Our benefactor made it one of the conditions of his gift that animals should be protected, as well as birds.

Every member of the Asscciation and the readers of Bird-Lore are urged to aid in every possible way in the campaign already started to save the fur-seal. Unless drastic action is taken, these interesting and valuable animals will soon have to be classed among the extinct species.

The Association urges that every reader of this notice will let his congressman hear from him regarding this extremely important matter.—W. D.

Important Meeting

The Fifth Bi-Annual Conference of the National Association of State Game Wardens and Commissioners was held in New Orleans, February 5–7. Commissioners were present from twenty states, and the Federal Government was also represented. The main topics discussed were "Federal Control of Migratory Birds," "Civil Service for Game Wardens," "Propagation of Game," and "protection of Non-Game Birds."

Mr. Frank M. Miller, Game Commissioner of Louisiana, arranged a number of entertainments and pleasant excursions for the delegates. Among the resolutions passed, was one heartily endorsing the work of the National Association of Audubon Societies. The meeting was regarded as a very successful one, and one which will result in much good throughout the country.

Mr. T. Gilbert Pearson, of North Carolina, presided at the meetings, and was re-elected President of the Association. Dr. George W. Field, of Massachusetts, was elected Secretary.—W. D.

An Appeal to Members

There is an urgent and immediate demand for several additional field agents; but the Executive Officers cannot enlarge its staff at the present time, because of lack of means. Good trained men should be placed in several states to conduct a campaign of education against the excessive slaughter of Robins, which takes place every winter, and during the early spring while the birds are migrating northward. The sentiment in the territory where this slaughter takes place, which is so abhorrent to the people of the states where the Robin makes its summer home, can only be changed by an active educational campaign, and such a campaign can only be made by placing in the field competent lecturers. If every member will secure only one new member at once, it will give the Society an increase of income sufficient to warrant the appointment of three additional field men. This is one of the methods to protect the Robin. Education is better than law, for it creates good sentiment, without which a law is useless.—W. D.

1. Sharp-tailed Sparrow
2. Nelson's Sparrow
3. Acadian Sharp-tailed Sparrow
4. Dusky Seaside Sparrow
5. Seaside Sparrow

(one-half natural size)

Bird-Lore

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My Summer Tenants

By STEPHEN P. BROWNELL, West Barnett, Vt.

With photographs by the author

TREE SWALLOW AT NEST

HURRYING northward, on swift wing, two pairs of Tree Swallows reach a certain fence beside a brook, which flows into the Connecticut river. The fields are yet cold and gray, with patches of snow still lingering around the hedges. Yonder mountain is as white as in winter, for it is only the middle of April. The brook is swollen and turbulent, and the wind blows cold and fierce; but these welcome visitors from warmer lands are as happy as they can be.

The strange migratory impulse that urged these birds onward toward the north is rapidly subsiding, but the nesting instinct is very pressing. But where shall they find a home? Where find a hidden hollow in which to place those white eggs that lack protective coloration? Gone are the pole fences that, criss-crossing around the pastures, provided such convenient hollows in their butt logs. Boards and barbed-wire have taken the place of the old poles. The bushes along the roads in which, formerly, Robins, Vireos and Catbirds built their nests, and which, also, provided a few hollow trunks for Bluebirds and Tree Swallows, have recently been cut down. The State Legislature ordered their destruction, so that ordinary travelers might see the speeding motor-car in time to escape to the fields for their lives.

But our Swallows are not discouraged. Despair never enters into bird-life. If the old tenements are torn down in the progress of civilization, some other place must be found for a home. Leaving the fence one at a time, they are soon perching on the saddle boards of a near-by house. They stop their twittering for a moment, to look carefully at two strange-appearing boxes, one on the wall of the house, the other on a pole near the barn door. These bear no resemblance to a hollow stump, or log; but a small, round opening in the side of each rivets their attention. It brings back memories of that knot-hole in the old pine log where, last summer, the love of home life found pleasant expression. Circling round and round the box on the pole, each time coming a little nearer, one pair—as the picture shows—makes a selection of a home. The others, after much apparent argument among themselves, and some opposition from the first pair, fix on the box near the kitchen door for their summer retreat. Very soon the female Swallow enters the box on the pole, though not till each in turn had stood many times on the peg that answers for a door-step, and peered cautiously into the mysterious apartment. In another photograph, the female bird is coming out from one of her visits of inspection, while her mate is keeping watch on the flat tower. The birds soon got on very friendly terms with the landlord who provided these free tenements, so the latter was able to get the pictures of his tenants by holding the camera in his hands. One day he walked up and put his hand on the back of the male bird, as it was looking in the nest, engrossed in admiration of the young.

The Tree Swallows were not alone in their long pilgrimage northward. Among the myriads of birds that were speeding, or had sped on in the same direction, were a pair of Bluebirds that had arrived nearly a month before the Swallows. Strange enough, their home for a few years past had been a box, with a slightly larger door, on the rear wall of the house. These earlier migrants had their nest nearly finished when the Swallows appeared. Hearing the "*tweet, tweet, twee-ee*" of the Swallows, they hurry over to the front of the house, and fiercely attack the newcomers. Thus began a war between these rival birds that lasted for several weeks.

While the male fights the Bluebird and guards the box, his mate does much more than cheer him on. Under her untiring efforts, a carpet of dried grass is soon placed in the box. This she covers with a soft layer of small, white, hen feathers. A few weeks pass, and six young birds with closed eyes, and featherless bodies, snuggle, with open mouths, among the feathers. As the landlord has no objection to children in his tenements, the Swallows are undisturbed, so far as he is concerned. But, one morning, the Bluebird was in a bad humor. Perhaps some little domestic trouble in the rear of the house had ruffled his temper. At any rate, he comes to the Swallow's nest and vigorously attacks the inmates. Immediately the watchful male swoops down upon the intruder. The mother bird rushes from her nest, to lend a bill in the fray. The rivals meet in the air, and, with toes and bills locked together, and wings pounding each

INSPECTION

the vacated nest, was surprised to find among the feathers a dessicated bird that had died when quite small. Perhaps the parents were reluctant to leave behind one of that happy family.

Both families have long since joined the great army of their own species,—the earliest of all the birds to leave for the South. Another winter has passed, and another spring-time has come. It is time now for the Swallows to return to their old box. Already the Bluebirds have come back. They were seen yesterday, stealing feathers from the Swallows' nest. But these may not object, to find that their old enemies have cleaned house for them.

other, they fall to the ground, too exhausted to try another round. Besides guarding the home, the father bird took his share of the work in supplying the hungry nestlings with bugs and flies. During the hot weather, the mother brought water in her bill for the thirsty birds, and sometimes she varied the diet of insects with a small piece of gravel from the road, probably in place of pepsin, to aid digestion.

During this time the birds in the other box were engaged in similar employments. With them, also, were six young birds constantly clamoring for attention. On the third of July, five well-feathered birds left the pole on the box, to shift for themselves. And the landlord, wondering why the parent birds kept entering

SELECTION

On another wall of the house in which the landlord lives is a flat box that has served for several years as a foundation for the nest of a pair of Robins. Here the mother bird "securely rears her young"—two broods each summer. No neighbor's skulking cat has been able to disturb her, for she is out of his reach. No pugnacious Bluebird, or darting Hawk, flies under the porch roof, to invade her quiet home. A bird of peace, herself, she lives and toils in peace. She, also, has posed, though rather unwillingly, for photographs—the only rental the landlord asks of his tenants. In the first picture she is admiring her four little ones, which are yet too small to show above the walls of the nest. But, later, they had sufficiently thrived on their diet of grubs and worms to be clearly in evidence when breakfast was ready. The mud worm which one favored, or rather, early bird tried to swallow fell into its throat like a coiled rope, and threatened to choke it. The watchful mother again seized it, and safely lowered it down in a straight line.

PROTECTION

One morning, after these birds had left home, the landlord was watching them bathing in the fountain near-by, into which one of the young birds tumbled. Looking up, he saw the Robin's nest preëmpted by a Barn Swallow. The bird was twisting itself about in the nest, just as its former occupant had done in making it round and smooth. The Swallow made a ludicrous appearance in the nest, which was doubly large for it; and when its ceased its gyrations for a moment to get breath, nothing showed except the ends of its forked tail and the tips of its primaries. Evidently the Barn Swallow had been working for some time on its new home, for the nest showed a layer of mud built partially around the top of the walls. Though the Robin's nest was at first much too large for the Swallow, the landlord concluded that this additional mud wall was the result of the building instinct that even prompts our domestic fowl to throw pieces of hay over her back and around her sides, when thrown off the nest where she is determined to sit. But the work of the claim-, or nest-jumper, was thrown away; for the next morning disclosed the rightful owner in full possession, lining the old nest with dried grass. In four days more, as many eggs were laid and in due time they added another quartet to young Robinhood.

BLUEBIRD AT NEST

Besides the possession of many treasured photographs of the different summer tenants, many other rewards are received for the rental of the bird-boxes. The birds nesting about the house gain much confidence in man when they learn that his intentions toward them are kindly. When the landlord comes out of the house, on a fine summer morning, he is greeted by his grateful tenants; and his presence is announced in various languages. Bluebirds, Robins, Swallows and Chickadees, — he hears them all speaking in their own tongue, "he is up." Such a greeting, though perhaps not intended by the birds as a special welcome, makes him feel as proud as the kings of olden time, whose approach was heralded with the sound of trumpets. The Swallow, at his vigil on top of the box, sees him as he steps from the porch, and whispers to his mate, "there he comes." The male Robin on the fence chirps out its modified

ROBIN AT NEST

alarm note to the mother feeding her four spiny fledglings on the window-shutter nest. Then the Bluebird, perched on the top of the barn, sees the landlord and calls to its mate. This call has not the "*cheerie, cheerie*" note that it had a while ago. The birds have changed their song since they got down to hard work. But when this brood is able to take care of itself, and the old birds resume their love-making, the "*cheerie,*" cheerful notes will take the place of the "we've toiled the whole day long" tune.

The Kingbirds, which persist in building in the eavespout, instead of on the safe foundation provided by better foresight, stop their work and announce to the neighbors that the landlord is out. The confiding little Chickadees, which were driven by the Bluebirds from the box so carefully fashioned like a hollow stump, occasionally return, and, looking over their first choice, seem to say that they are sorry they took the old stump across the road for a nest. Below the house the Chebecs are nesting in the elm tree, and, as the landlord approaches, one calls to the other, "*chebec, chebec, chebec*"; then from the mate on the telephone wire the answer quickly comes, "quit, quit, quit," which probably does not mean stop in the *Chebecish* tongue.

The Hermit Thrush; the Voice of the Northern Woods

By CORDELIA J. STANWOOD, Ellsworth, Maine

IN the Canadian fauna, the Hermit Thrush, the most definite Thrush to study, comes a month before the Olive-backed Thrush arrives, while the snow-wraiths still linger in the shadowy forests, before the arbutus has begun its subtle task of transmuting decaying earth molds into rough leaves, waxen petals, and delicate perfume, and stands out against a background of well-nigh silent woods. It tarries as long after its congener has departed. Again it is in the foreground of a landscape, accented by dry rustling leaves and naked tree trunks, with but few birds to rival it in our attention.

When the Hermit Thrush makes its début in the spring, its song is wonderfully sweet, but it does not come into full possession of its voice until some time after its arrival. In early August, it is still in full song. It was in the gloaming, August 4, 1909, that I stole upon one of the most ethereal demonstrations of the Hermit Thrush I ever witnessed. My narrow footway lay through a stretch of evergreen woods, interspersed with a few birches and poplars. The birds were perched at different heights on the side of the woods illumined by the sinking sun, and seemed to vie each with other in hymning its glories. Each burst of melody was more indescribably perfect. Before the last cadence of one song died on the air, a pure, serene exalted pæan of praise burst forth from another golden throat. The air palpitated with Thrush harmonies. I paused and passed on unobserved in the quickly gathering shadows, my footsteps falling noiselessly on pine leaf and moss-tuft. By August 14, the song is thin, suggesting the

imperfect attempts of a young bird. Later than that the Hermit Thrush seldom sings.

It is to be regretted that so many of the young fail to mature. A record kept for five years, containing the history of fourteen nests and forty-seven eggs, shows that only nineteen fledglings left the nest. The offspring of twenty-eight birds were nineteen. My notes on Olive-backed Thrush and Robin show even more fatal data, as their nests are larger and most of them so badly exposed. I wish to emphasize the fact that these very beautiful, insectivorous birds lead a most precarious existence, having to contend not only with wild foes but with the ever-prevalent, half-fed cat.

The Hermit Thrush usually nests in open spaces in an unfrequented wood, beside a wood-road or even a quiet street, and on the borders of pastures skirted by woodlands. The nest is placed, generally, under a low fir tree, occasionally under the tip of a long fir branch, rarely in a clump of ferns. A swamp appears to be a necessary concomitant. Seven nests were located in a knoll, two in a damp hollow, and six just above the swale in the dry earth of a hillside. In almost every case, the slight excavation for the foundation of the nest was made in the loam of a decayed log or stump.

The nests are very much alike. The outside of the structure is composed of moss, dead wood, twigs and hay; it is lined with a small amount of black, hair-like fiber, and pine needles. Once or twice the foundation of the nest consisted of more than the ordinary amount of moss. At another time it was made almost entirely of sticks or twigs. Fourteen were lined with pine needles, one with the red fruit stems of bird wheat moss, and bird wheat moss. The proportions of all nests are about the same. The one constructed entirely of twigs was about a half-inch thicker at the top than the others.

In two or three cases, I have found the Hermit Thrush very timid. Generally, the bird flies from the nest as a person approaches, or runs away over the leaves with head and tail drawn down, to appear less conspicuous, mounts a branch at a safe distance, regards one a few instants, while it slowly raises and lowers its tail, then glides from sight. One or two have been so tame that I have had to put my hand out, as if to touch them, to drive them from the nest.

In 1907, beginning June 14, I found five nests, the last on July 1. Each clutch of this year contained three eggs. Either the eggs or the young were destroyed in all these nests save one, and that, I believe, was the second nest of the bird that season. The fate of the other two nests was a great disappointment. In the hope of finding one more, I entered the next pasture, and turned over each small fir carefully, to see if its fragrant branches concealed one of the coveted abodes. Under almost the first fir, I saw a large beautifully made nest with the lining of the bottom and side torn out. Here was another defeat; but, behold! On the top of a knoll a few yards away was what appeared to be a freshly made nest. I concluded that these were both nests of the Hermit Thrush; that the first nest I found had been destroyed, that the bird went away a short

distance and constructed a second, that the accident had befallen the bird so lately that she had barely succeeded in completing the new nest. I was exceedingly anxious to know if I had been wise enough to read a tragedy and its sequel aright from these few facts, so I visited the knoll each day; the fourth day, there was the egg of a Hermit Thrush. Two days later, at noon, the bird was sitting on three eggs. On the twelfth day, July 10, two birds were out of the eggs by noon. They were large birds, covered with a sparse growth of burnt-umber down about one-fourth long. On the fifth day, the birds had quills on the wings and pin-feathers on the back. The eleventh morning, July 20, the last nestling left the nest in the afternoon.

A space for the nest was hollowed in a bit of decayed root or log, under a fir tree, beside a stump in the top of a knoll, overgrown with bird wheat moss and boulder fern. For foundation, the nest had a mass of dead wood, dead leaves, moss, roots, and fern stipes; for lining, pine needles and black hair-like plant fiber.

The diameters within were two and one-half inches by three and one-fourth inches, depth three inches. The thickness of the walls at the top was one inch, at the bottom one-half inch. Nearly all these measurements were taken before the eggs were laid.

June 2, 1908, I flushed from the nest a most gentle Hermit Thrush, incubating four eggs.

June 7, there were three nestlings in the nest, burnt-orange in color, marked with long, very dark-brown down. On the third day the eyelids of the young Thrushes were parted in the center one-sixteenth of an inch. The feather tracts were of the hue of gunpowder, the spaces between the feather tracts a tone of burnt-orange.

The fifth day the eyes of the young birds were well open; very dark brown pin-feathers were beginning to show through all the feather spaces; the pin-feathers were longest in the center of the tract and shortest on the edges; they looked, at this stage, like horse-hairs slightly overlapping each other.

The sixth day the quills were longer and fuller. The seventh day the tips of the quills and pin-feathers had burst, so that in the morning the tips of the speckled, olive-brown and golden-buffy feathers showed.

The tenth day the young Thrushes opened their mouths wide for food, as usual, at my approach, but on the eleventh day, the nestlings did not attempt to open their beaks for food in the morning or afternoon. This was the first time they showed any indication of fear.

On the twelfth day. The young Thrushes were gone by 9 o'clock this morning. The nest was immaculate, save for the quill scales that filled the interstices. It was placed in a knoll, under a miniature fir, just off a street not much frequented, in an open space in a growth where firs, pines and spruces predominate.

Generally, I find my nests of the Hermit Thrush by turning over trees and

looking under the branches. In such cases, or when the Thrush is flushed from the nest, if she is merely incubating, she usually disappears quietly. When the young are in the nest, the bird acts more disturbed, often mounting a stump or branch, and calling *chuck! chuck! chuck!* or sometimes *p-e-e-p! p-e-e-p!* This almost always attracts the attention of her mate and the other Thrushes, who respond in numbers, and join their calls to the chorus of *chucks* and *peeps*. I have known the bird, however, to fly away almost without a protest, even when the young were taken from the nest.

August 22, 1909, while gathering blueberries for the tame Thrushes, I flushed a Hermit Thrush from her nest, containing three eggs. This is the latest date on which I have found the Hermit Thrush nesting.

August 27, three young were hatched; twelve days later, September 8, the nestlings left the nest before 9 o'clock.

The time of incubation, as one can readily see from the above record, is twelve days; the young remain in the nest twelve days, and leave early in the morning, as a general thing. One egg is laid each day about ten o'clock in the morning, and the bird begins to incubate by 12 o'clock of the day the clutch is completed.

I have found the number of eggs in a set to vary from four to two. I should judge from the nesting dates I have gathered that the Hermit Thrush, like its cousin the Robin, raises from two to three broods during a season.

Summary of Observations on the Hermit Thrush

1905.—April 23, First seen; May 27, Incubating four eggs; June 27, Incubating four eggs.

1906.—May 21, First seen; July 9, Incubating four eggs.

1907.—April 27, First heard; June 14, Incubating three eggs; June 15, Incubating three eggs; June 23, Nest destroyed; June 23, A nest completed—three eggs later; July 21, Bird incubating three eggs.

1908.—April 23, Saw two Thrushes; June 2, Bird incubating four eggs; June 4, Bird incubating four eggs; June 8, Three large birds about ten days old. July 3, Bird incubating two eggs; October 25, Last seen; August 14, Last heard in song.

1909.—April 20, First heard; May 26, Nest containing two eggs, four the following day; August 11, Nest containing three birds, two days old, judged; August 23, Bird incubating three eggs, hatched August 27, left the nest September 8; August 4, In full song; August 14, Last heard singing; voice thin; October 31, Last seen; November 6, Last responded to my call.

HAWK OWL
Photographed from nature by A. B. Reed, of the 'Boston Traveler,' at Brookline, Mass. about January 25, 1910

Between the Tracks

By GERALD ALAN ABBOTT

With a photograph by the author

DURING the spring migration, Waders patrol the beach along Muskrat Creek. Twittering and waltzing, the American Dunlins, Solitary and Spotted Sandpipers, track nervously over the mud-bars in search of animal life. Four hundred yards to the south, the slough grass affords ample protection for those peculiarly retiring birds, the Rails. Occasionally they expose themselves while passing from one clump of vegetation to another. Their broad footholds, caused by the spread of three lengthy toes, enable them to tread over treacherous places too shaky for man.

Between the tracks is a growth of sumach, willow, alder, hazel and briar. This is a rendezvous for that "Owl among Snipe," the Woodcock. Dozens of these 'Bog-suckers' are in this undergrowth every March and October. Many are transients, making their summer home in more northerly latitudes.

The residents begin to nest shortly after their arrival, and, on cloudy days, or before and after sunrise, the atmosphere resounds with whistling wings and a peculiar twitter of the cocks. Spiral ascensions, accompanied with a tremor of wings, take the bird to a height of over one hundred feet. During this paroxysm, the vocal cords are exerted to the full extent. The descent is a series of zig-zag swoops, and the male alights within a few feet from where he arose. The object of his affection is apt to be within close proximity, and is modestly pruning her feathers or complacently squatting on her four yellowish brown eggs.

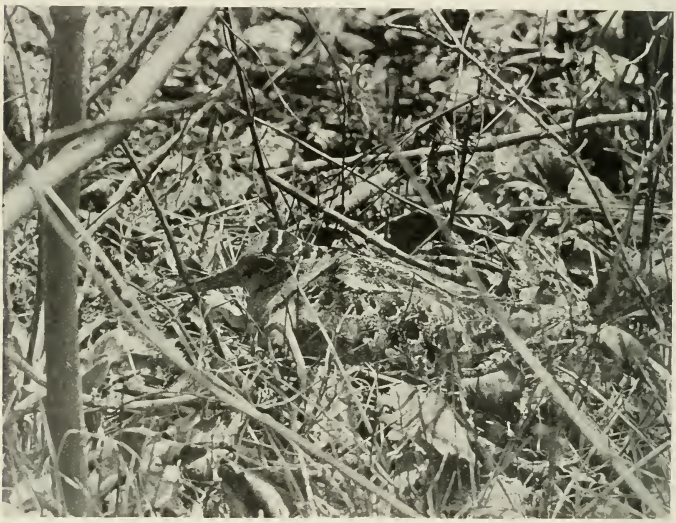
The Woodcock does not hesitate to venture close to the habitation of man. In one of our suburban towns, a Woodcock chose a clump of bushes in the rear yard of a private residence. Suburbanites living in the timbered sections about Chicago are well-to-do people, and their lawns and grounds are well irrigated or watered. The Woodcock likes this, and he sallies forth after the shadows of night have fallen, and feeds in the mellow soil under the sprinkler or by the hydrant.

Last spring, I invited a friend to tramp along Muskrat Creek and, leaving him to doze on a bed of buttercups, I took up the trail of a Woodcock. Under a clump of poplars the leaves were disturbed, and close inspection disclosed several signs of my favorite wader. Close to a cow-path I found the male sitting on the nest, beside a weather-beaten stump and with a south exposure. The shadow fell evenly across the bird's back, and the effect of the color scheme, or "protective coloration" was splendid. I could determine the sex of the bird, because the females are slightly larger. Next time I visited the nest the other bird was incubating, and she looked to be fully an inch longer than her mate.

The domestic life of the Woodcock is very impressive, despite the fact that the birds themselves are comical-looking. Even the mother bird, while leading her young through the brush, presents a laughable appearance. The eyes are

set so far back on the head that she appears to be looking behind her, and at times so intensely that she strikes against an obstacle, with the result that a portion of the head is sometimes bared where the feathers are torn from the scalp by thorn or brier.

The weather may be balmy when the nest contains eggs, but severe storms of snow and sleet do not deter matters. The birds appear instinctively to know



WOODCOCK ON NEST
May 4, 1909

how to arrange the duties of incubation, so the eggs hatch when climatic conditions are favorable for development of the young.

The water in the marshes was lukewarm, and on the little slope bordering a swamp, mandrakes and mushrooms were bursting through the virgin soil. Several Whip-poor-wills were dozing on fallen boughs, and our pretty Yellow-breasted Sapsucker was tapping a fresh poplar. I sometimes think that the Woodcock sleeps with his eyes open, because I often detect them resting on their breast where the soil is soft and the warm sun generates considerable heat from the moist ground.

By the willow copse another bird was sitting, a few hundred yards from the brush pile which contained the nest which we photographed. As I approached the willows, I noticed what I judged to be the male sitting on the nest, and, instead of making his exit in the usual Woodcock manner, he simply tumbled off the nest

in acrobatic style. The four eggs lying on the decayed leaves presented a beautiful sight. The light creamy background offset the brick-red blotches, and many lavender markings seemed to show through from the inner side of the shell.

Nests which are exemplifications of art and bird craft, such as the Blue-gray Gnatcatcher, are marvels for neatness and construction; but nothing is handsomer to me than a beautiful set of eggs lying in a bed of leaves, just as they are deposited by the Woodcock or Whip-poor-will.

The Woodcock often chooses a locality outside of the dense brush. One of my farmer friends, while plowing his corn stubble several years ago, overturned a mother Woodcock. In a depression of corn husks she was sitting on four eggs May 15, and, had she commenced maternal duties twenty-four hours earlier, her offspring would have undoubtedly escaped the plow.

SPOTTED SANDPIPER
Photographed by H. H. Cleaves, Staten Island, N. Y.

The Nesting of Hepburn's Rosy Finch

By CHARLES STUART MOODY, M. D.

With a photograph by the author

I WAS not aware until quite recently that the nesting habits of Hepburn's Rosy Finch (*Leucosticte tephrocotis littoralis*) were but little known. The bird is so common among the higher sierras of the Northwest that I supposed all the ornithologists were familiar with it and its home-life. Prof. W. L. Dawson, in his most excellent work on the birds of Washington, however, mentions the fact that the eggs have not, to his knowledge, been taken. That being the case, I will endeavor to state some few things about the bird and its nest; it having been my good fortune to locate at least three nests of this Rosy Finch, one of which I succeeded in photographing *in situ*.

Hepburn's Leucosticte is an almost constant resident in north Idaho, especially in the higher slopes of the Bitter Root, Cœur d'Alene, and Cabinet mountains It does not seem to be deterred by the deep snows, and many times I have seen flocks of them feeding with Crossbills about the door-yards of miners' cabins when the snow was many feet deep. Like Crossbills, they are very fond of salt, and will greedily eat anything of a saline character. There is also a small black midge, or gnat, that covers the snow on certain warm days, and these the birds devour. I have also seen them industriously picking about the tops of fir trees and on the branches of white cedars.

I can not better describe their nesting than by giving the incidents relating to the photograph which accompanies this article. We were fishing one of the swift mountain streams that flow into Lake Pend Oreille in north Idaho, last summer. It is a very rough country through which the stream runs. Immense bluffs of black basalt and granite tower hundreds of feet sheer from the bed of the stream. In the niches grow stunted evergreens and a few deciduous bushes. Several miles from where the stream flows into the lake a mining flume begins. It is cut a part of the way out of the solid rock and winds sinuously along the mountain side. My son and I were picking our way along this flume one day, that being the most direct way back to camp, when we noticed a nest high on a shelf of rock above our heads. It was late (July 5), and I did not think it to be occupied. To make sure, I tossed a small stone up and started a Rosy Finch from her nest. I did not attach much importance to the discovery, but the lad insisted upon scrambling up to investigate. When he informed me, clinging to the side of the cliff, that there were eggs in the nest, I resolved to make a picture of it, more from the fact that it was so late in the season than with any idea of perpetuating a rare nest. During this time the bird sat upon the top of a small fir that grew near the flume, and scolded with an angry *chuck*, which, as Mr. Dawson has well described it, sounds like the slap of the ratlines on a flag-pole in a high wind.

The next day I returned with my camera and, after a deal of trouble, succeeded in getting sufficiently near to the nest to make an exposure. This was

done by holding the camera in my hands, bracing myself against the side of the cliff and guessing at the distance. Fortunately I am a pretty good guesser, and the result was better than circumstances would seem to warrant. It was so good, at any rate, that I kept the plate.

The nest as will be seen, is situated upon a slight shelf of the rock near where the cliff takes a sharp angle. It was composed of dried grass stems, pine needles and moss. The structure was poorly made, and I am at a loss to understand why the wind did not sweep it away. The eggs, which were about .94 x .50 inches were a bluish white, though I am inclined to believe this was due to the incu-

NEST AND EGGS OF HEPBURN'S ROSY FINCH

bation, as they appeared about ready to hatch. I think that the eggs when first deposited are milk-white, from the fact that those in another nest discovered by me the next season were of that color.

The other two nests of this bird were discovered on Lightning Creek, a tributary of the Clark's Fork of the Columbia. This swift stream is born in the glaciers of the Cabinet Range, and comes roaring down out of the mountains like a mill-race. Like the other stream, it flows through a very rocky country. We were fishing the stream near its head, at an elevation above sea-level of at least 10,000 feet. A slide obstructed our progress up stream, and we were obliged to take to the bluffs to get around. While picking our way around a cliff upon which tussocks of grass were growing, a Rosy Finch started from beneath my

feet. She alighted on a rock not far distant, and complained about our intrusion. The nest was situated beneath one of these tussocks, and was very similar to the one just described. As I stated, the four eggs were milk-white. I felt strongly tempted to secure this set, but as we were several miles from camp, and camp was many leagues from the railroad, I did not believe that I could bring them out without breaking. It was just as well, for the bird was doubtless happier in their possession than I would have been. This was late in June. The next day, in practically the same territory, I found another nest, containing three young and one unhatched egg.

This report is doubtless fragmentary and disconnected, but it may serve to throw a little light on these birds. They are quite common here, and I believe that diligent search will reveal them nesting in the country I have described, in great numbers. In fact, the accidental happening upon three nests, without any search whatever, would indicate their frequency.

BOBOLINK SINGING
Photographed by H. H. Cleaves Staten Island, N. Y.

The Migration of North American Sparrows

FOURTH PAPER

Compiled by Professor W. W. Cooke, Chiefly from Data in the Biological Survey
With Drawings by Louis Agassiz Fuertes

(See frontispiece)

SHARP TAILED SPARROW

This species winters in the salt marshes of the Atlantic coast from North Carolina to Florida, less commonly on the New Jersey coast, and rarely or casually on Long Island, and even on the coast of Connecticut. The earliest migrants appear on Long Island late in April, and reach the northern limit of their range in eastern Massachusetts and southwestern Maine about May 20. The last were noted on Cumberland Island, Ga., April 25, 1903, and in Chatham county, Ga., May 2, 1907; the last at Pea Island, N. C., May 11, 1901, and May 12, 1902. Some late fall records are: Scarboro, Me., September 17, 1902; Durham, N. H., October 21, 1899, and Newport, R. I., October 1, 1899.

NELSON'S SPARROW

A comparison of the breeding and wintering ranges of the species shows an unusual migration route. The breeding range extends from Manitoba to northern Alberta, while the species winters on the seacoast from North Carolina to Texas, and occurs in migration as far north as Massachusetts. The migration route is therefore fan-shaped, the small end in Alberta, hardly four hundred miles wide, while the other end reaches from Texas to Massachusetts, with a width of sixteen hundred miles.

Spring records are scanty and irregular: Blacksburg, Va., May 23, 1908; Atlantic City, N. J., May 9, 1892; Erie, Pa., May 24, 1900; Cambridge, Mass., May 31, 1871; Scarboro, Me., May 22, 1897; Quincy, Ill., April 26, 1889; Warsaw, Ill., May 8, 1879; Geneva, O., May 17, 1902; Coralville, Ia., May 27, 1904; Sioux City, Ia., May 24, 1906; Madison, Minn., May 23, 1889; Minneapolis, Minn., May 26, 1892; Cando, N. D., May 15, 1891; Winnipeg, Manitoba, May 25, 1892; Stony Plain, Alberta, May 23, 1908; and May 26, 1909; Peace River Landing, Alberta, June 19, 1903; Hay River, Alberta, June 30, 1903. The latest recorded dates in the winter home are: Amelia Island, Fla., May 11, 1905; Chatham county, Ga., May 2, 1907; Sabine, La., May 20, 1907.

Fall records are more numerous and indicate a late migration. Dates of fall arrival are: Southern Wisconsin, average, September 18, earliest, September 7, 1877; Chicago, Ill., average, September 21, earliest, September 17, 1874; Toronto, Ont., September 22, 1894 and September 23, 1898; Fort Wayne, Ind., September 27, 1903; Erie, Pa., September 23, 1893 and September 13, 1900; Washington, D. C., September 18, 1893 and September 26, 1898; Charleston, S. C., October 8, 1884; Fernandina, Fla., October 17, 1906. The latest dates recorded in the

fall are: Chicago, Ill., average date of the last seen, October 10, latest, October 15, 1903; Toronto, Ont., October 28, 1896 and October 29, 1897; Iowa City, Ia., October 12, 1894; North Freedom, Wis., October 15, 1904; Delavan, Wis., October 14, 1908; Lincoln, Neb., October 8, 1904; Neosho Falls, Kans., October 17, 1881; Scarboro, Me., October 16, 1894; Hamilton, N. Y., October 17, 1900; Cambridge, Mass., October 7, 1871; Portland, Conn., October 22, 1894; Rockaway Beach, N. Y., October 5, 1907. The species has been taken as a straggler near San Francisco, Calif., May 6, 1891, and January 31, 1896.

ACADIAN SHARP-TAILED SPARROW

The breeding range of this species almost touches the range of the Sharp-tailed Sparrow in southwestern Maine, and extends thence along the coast to Cape Breton Island. Spring migration records are rare: Boston, Mass., May 21, 1896 and May 31, 1897, Lubec, Me., May 21, 1903; Yarmouth, Nova Scotia, June 14, 1904. In the South it has been recorded at Amelia Island, Fla., February 24, 1906; Cumberland, Ga., March 7, 1902 and Frogmore, S. C., March 19–April 20, 1886.

The earliest date of fall arrival is September 10, 1905 at Portland, Me., scarcely beyond the breeding range. It was noted at Portland, Conn., October 4, 1890; Shelter Island, N. Y., October 7, 1901; Atlantic City, N. J., October 2, 1892; Charleston, S. C., October 25, 1889, and Amelia Island, Fla., November 16, 1905. The latest dates at the breeding grounds are: North River, Prince Edward Island, October 18, 1889; Scarboro Marsh, Me., November 15, 1877; Charleston Beach, R. I., October 15, 1899.

SEASIDE SPARROW

The Seaside Sparrow and its several forms breed in the salt marshes from Massachusetts and Texas. They are resident on the Gulf coast and winter regularly north to North Carolina. The following dates of occurrence farther north may represent wintering birds or unusually early migrants: Seaville, N. J., February 22, 1892; Far Rockaway, L. I., February 22, 1884; Lawrenceburg, L. I., March 12, 1888; Barnstable, Mass., February 9, 1898; Monomoy Island, Mass., April 14, 1890. The main body of the migrants reaches New England in early May.

The last one seen at Newport, R. I,. was October 1, 1899; Bridgeport, Conn., September 17, 1904; Flatlands, L. I., September 30.

Notes on the Plumage of North American Sparrows

THIRD PAPER

By FRANK M. CHAPMAN

(See frontispiece)

Sharp-tailed Sparrow (Fig. 1). The pronounced buff markings, brown crown stripes, and striking pattern of the upper parts, are among the most characteristic features of the Sharp-tail in fresh plumage. Worn summer birds lose much of the buff on the breast and sides, which are then more sharply streaked, but the buff on the sides of the head is still conspicuous.

The nestling differs greatly from the adult, being entirely rich buff below, usually more or less streaked on the breast and sides; the upper parts are dark blackish brown, the feathers of the back, the wing coverts and tertials being widely margined with yellowish brown. This plumage, as Dwight has shown, is worn from the time the bird leaves the nest in late June or early July, until September or early October, when, with the exception of the primaries, the primary coverts and the secondaries (and sometimes all these), it is molted and replaced by the first winter plumage, which resembles that of the bird figured, and is indistinguishable from that of the adult in winter plumage.

As is usual with sedge-inhabiting birds, the effects of wear are soon apparent, and midwinter specimens are as faded and worn as those of midsummer. Breeding plumage is therefore acquired by a complete molt in March and April, when the bird again acquires a plumage resembling that of fall. By the latter part of May, the effects of wear and fading are apparent, and midsummer specimens are almost white below, while the upper parts are dingy olive, almost if not wholly unmarked.

The seasonal changes in the plumage of both Nelson's Sharp-tail (Fig. 2) and the Acadian Sharp-tail (Fig. 3) are similar to those just described. The first named differs from the Sharp-tail (Fig. 1) chiefly in being unstreaked or but lightly streaked below, in having the upper parts richer and browner in tone, with the scapular markings whiter and more pronounced, and in its smaller size.

The Acadian Sharp-tail (Fig. 3) is the palest of the three races. It is always streaked below, but the streaks are dusky and not sharply defined; the buff is much less rich and the back is grayer and greener, as the figure clearly shows.

In worn summer plumage the New Brunswick specimens are markedly different from Shoal Lake, Manitoba, specimens of Nelson's Sharp-tail, the upper parts of the latter bird at this season showing the effects of wear and fading but little.

Nestling specimens of the Acadian Sharp-tail are usually unstreaked below. The nestling plumage of Nelson's Sharp-tail appears never to have been described.

Seaside Sparrow (Fig. 5). The Seaside is a greenish gray bird with a yellow

loral mark, with indistinct dusky streaks and a faint wash of buff on the breast and sides. In worn plumage the buff disappears, but the back is still greenish gray and unlike that of any of our other Sparrows.

The nestling is wholly unlike the adult. Its breast and sides are a pronounced buff, conspiciously streaked with blackish; the upper parts are grayish brown streaked with black. As with the Sharp-tail; the bird wears this plumage from the time it leaves the nest in late June until August or September, when, by molt of all the feathers, except primaries and secondaries (and possibly in some cases even them), the first winter plumage is acquired.

The adult passes into winter plumage by a complete molt in August, after which it is indistinguishable from the young bird. This is the plumage figured (Fig. 5).

Unlike the Sharp-tail, the Seaside has no spring molt. Its plumage, however, shows the effect of wear, and fading much less than does that of the Sharp-tail. Long Island specimens taken as late as the middle of May are still in comparatively fresh plumage, but after that date the change to worn breeding plumage comes quickly.

The four southern races of our northern Seaside Sparrow are all of about the same size, and are smaller than our bird. They are sometimes distinguished with difficulty, but, since they are largely residents and are confined to our South Atlantic and Gulf coasts, they do not come within the experience of many ornithologists. For our present purposes we may simply say that Macgillivray's Seaside inhabits the coast of South Carolina and Georgia, where its relationships with Scott's Seaside are not clearly understood. The latter alone inhabits the west coast of Florida, and doubtless extends west to Louisiana, when it is replaced by the darker Fisher's Seaside, which is most nearly related to Macgillivray's Seaside. On the south Texas coast we have Sennett's Seaside, which, although most widely separated geographically, is still most like our northern bird.

Black Seaside Finch (Fig. 4). I have seen only March specimens of this little known bird, but it is not improbable that its plumage changes correspond with those of the northern Seaside. It is confined to the marshes of northern Indian River, chiefly on Merritt's Island, and has never been seen, I believe, north of the Haulover Canal. I have seen no specimens of the northern forms south of Matanzas Inlet, and if as appears, the ranges of these two birds do not come together, the Black Seaside is an isolated race, a fact which may in part account for its strongly marked characters.

Notes from Field and Study

Ducks Increasing

During the past winter, while cruising along the Florida coast in the performance of duty as inspector of lighthouses, I was impressed by the great numbers of Ducks seen in many places. In the months of January, February and March, 1910, at various times, I saw in Pensacola Bay, St. Andrew's Bay, St. George Sound, Tampa Bay, Charlotte Harbor, Key Biscayne Bay, and several other regions along the coast, flocks of Ducks that were remarkable for numbers. In Tampa Bay and in the upper end of Key Biscayne Bay, north of Miami, the flocks seen were really enormous, extending sometimes two or three miles along the surface of the water, and numbering tens of thousands of individuals, swimming and feeding close together.

I cruised in these same waters the winter before and saw thousands of Ducks, but the greater numbers this past season was very noticeable. Residents, mostly lighthouse keepers and watermen, with whom I talked at all places visited, agreed that they had never before seen such huge flocks in their neighborhood.

For the most part these were Bluebills (Lesser Scaup), but I saw at different times and places, generally associated with the Bluebills, some Teal, Ringnecked Ducks, Canvasbacks, and the resident Florida Ducks. The Scaup Ducks are known locally in Florida as 'Raft Ducks, but why I am unable to say. They swim in very compact masses, and a flock of them some distance away looks somewhat like a large raft of logs bound together to be towed to a sawmill, and perhaps the resemblance suggests the name.

The lateness of the season that some of these Ducks remain in Florida is noteworthy. Voyaging south from Pensacola in April, I saw in Choctawhatchie Bay, St. Joseph's Bay, and in Apalachee Bay, near St. Mark's, small groups of Lesser Scaups, aggregating from twenty or thirty to as many as one hundred at each place named. These may have been stragglers, left behind by the spring migration, but April 11, in the western end of Apalachicola Bay, I saw the same species in such numbers that the assumption that they were stragglers is unreasonable. I observed, a few miles apart, three separate flocks or "rafts" of these birds feeding in shoal water, and each flock contained from two thousand to three thousand individuals at the very lowest estimate.—F. M. Bennett, Commander, U. S. Navy, *Key West, Fla.*

The Grackle in Virginia

In the center of the town of Pulaski, Virginia, there is a very beautiful lawn enclosed by a stone wall and shaded by a thick grove of maple and cottonwood trees, and in the center of this enclosure is located Maple Shade Inn. But the visitors to the grove are more interesting in many respects than the visitors to the hotel, and especially is this true of the Grackle (*Quiscalus quiscula*), a half dozen pairs of these birds finding asylum here each season for the raising of their young.

But after the young ones are strong enough to fly well, a change begins to take place, and the birds all leave the grove early in the morning and return about sundown with increased numbers. This is kept up for many weeks until their numbers reach over a thousand. In leaving the grove in the morning, the greater part of the flock goes together and in a northeast direction, from which they never vary. On their return in the evening, the flock is very much more broken up into smaller flocks, but always returning by the same route. I have seen these birds eating dogwood berries in the woods four miles directly east of this place. Following the greater arc of the circle from east to northwest, there are moun-

tains with no cultivated fields, while the remainder of the circle is made up of fertile farms from which almost all varieties of grain and insect food could be obtained.

It had been the habit of these birds for eleven years to stay until the October and November frosts had taken away their nightly covering of maple leaves, and then for several days on their evening return to tell of their intended departure by circling over their accustomed roosting-place, making continuous cries, settling in the partly bare trees, then rising and going through the same program for several times. But last year, after gathering in their usual numbers and manner, they left unceremoniously and took up their abode in a valley beyond a mountain four miles east, and never ventured back to their old haunts. This change was not brought about by the shot-gun or season, for there was no shooting at their roost and no difference in the rainfall of the two places, but I attribute it to a scarcity of their food-supply in their old haunts.—O. C. Brewer, *Pulaski, Va.*

Our Duty to Our Bird Tenants

I wish to second Mr. Bennett's motion, in the last issue of Bird-Lore, that a movement be inaugurated for obviating the feline pest that is so prevalent in our cities. The dog, that is acknowledged man's most faithful friend, dare not show his face on a city street, unless he has a license tag attached to his collar; while mongrel cats—black, white, gray, yellow and spotted, big, little, old, young and indifferent—slink about our alley-ways and back yards, their every movement emblematic of distrust and thievishness, a constant menace to the few birds that are emboldened to live in the city, and thus indirectly a bane to the small gardener.

If the cat nuisance is got rid of, we will take heart and put some bird-boxes in our back yard, where birds come each spring in search of a nesting-site, which we are now careful to see is not provided; for how could we enjoy the exuberant song of our little feathered neighbor (at our invitation), when we knew that it was eventually to become the requiem of his little ones, that, in their helplessness, must inevitably fall into the clutches of the stray cats that daily prowl about the premises?

One who, under existing conditions, as we have found them, would encourage birds into his city yard, surely cannot have the welfare of those birds at heart.—Edgar Boyer, *Sparks, Nevada.*

Pittsford, N. Y., Notes

On April 13, near here, I saw several flocks of Juncos, and among them was one with a snow-white head and neck. Otherwise it looked like the other members of the flock. On the same day I saw a Towhee singing in some lilac bushes, very near a house in the village.—Mrs. Anna E. Agate, *Pittsford, N. Y.*

Snowbuntings in Vermont

On February 6, a large flock (probably 200) of Snowflakes appeared in our village. It is the first record for three years, and perhaps longer. Last winter, there were large flocks of Pine Siskins and Redpolls, with a few Goldfinches and White-winged Crossbills; but none was seen this past winter. The Siskins were first noticed May 28, 1907, and they stayed until the middle of July, 1908.—Eliza F. Miller, *Bethel, Vt.*

A Winter Catbird

I wish to record the occurrence of a Catbird in Brockton, Mass., in winter. I first saw it December 19, 1909. Up to that time the season had not been very severe, the coldest being about 15°, and holding steadily near that temperature for some time. The bird was in an old, upland pasture overgrown with junipers, birches, young pines, huckleberry and bayberry bushes, with numerous tangles of horse-briers.

During the week before Christmas the temperature fell to 12°, with but little

snow to that date. Christmas day I again saw the Catbird in the same situation It was evidently living on the fruit of the bayberry and red cedar, which is abundant this season.

Christmas evening it began to snow, with the wind from the northeast. For the next twenty-four hours there was the most severe storm for years. When it was over, trains were stalled, telegraph and telephone poles and wires were down, and communication broken in all directions. In the old pasture, cedars and birches were bowed to the ground and held down by the weight of snow, and the horse-brier tangles had completely disappeared, being so pressed down and covered that where, the day before, I could not force a way through, I could now walk over with the snow well above my knees.

The Catbird survived the storm, but was driven from the pasture, as its food was completely covered, unless it cared to eat the seeds of the birches, as did the Chickadees and Tree Sparrows. Soon after the storm, the Catbird appeared at a house in the neighborhood, seeking food on the piazza. That night the temperature fell to 10°. Since then a search of every suitable place has been in vain. Whether the bird was frozen to death or, concluding that the New England climate was too strenuous, started for warmer climes, is an open question.—Rufus H. Carr, *Brockton, Mass.*

Tufted Titmouse in Northern New Jersey

On February 27, 1910, I found three Tufted Titmice at Pine Brook, New Jersey. My attention was attracted to these Crested Tomtits by their three-note song, which they continually whistled all of the time I was observing them. All three were busily engaged searching for food and were very tame. One was particularly sociable as he flew to a branch close over my head and remained there for a few seconds, watching me, and at the same time singing. This is the only time when I have found this species in New Jersey.—Louis S. Kohler, *Bloomfield, N. J.*

Notes on New Jersey Winter Birds

In northern New Jersey, according to the observations of the writer, there has been during the past winter (1909–10) an entire absence of all the irregular winter visitants, such as the Siskin, Redpoll and Crossbills.

I have not observed a Purple Finch in the vicinity of Plainfield since the spring migration a year ago. While, in some winters, this species is rare or absent, it is almost invariably present in the spring and fall. As bearing upon this observation, a note in the last Christmas Bird Census is significant. Mr. L. H. Potter there stated that the Purple Finches were plentiful in Vermont (Clarendon) last winter, and that he had not seen them wintering there before.

The Golden-crowned Kinglet and the Brown Creeper were unusually scarce the past winter. No Kinglets were met with between about December 1 and March 27.

Among the noteworthy records was a Wood Thrush observed in Ash Swamp, near Plainfield, on December 19 and 25. A heavy snow was falling when the bird was visited on Christmas day, and it was not seen after that date. This is the first winter record of the Wood Thrush for New Jersey.

A Fox Sparrow was seen in the same place on December 25. With the exception of the preceding winter (1908–9), this is my only record of the Fox Sparrow later than December 2. A Dutch Hawk was observed on New Year's Day, its first occurence here in winter, in my experience.—W. De W. Miller, *Plainfield, N. J.*

A Blue-Gray Gnatcatcher in Prospect Park, N. Y.

On April 7, 1910, my wife and I saw a Blue-gray Gnatcatcher in Prospect Park. We sent word to other members of the 'Bird Lovers' Club of Brooklyn, and four members noted the bird on the 8th, 9th, and 10th of the month.—E. W. Vietor, *Brooklyn, N. Y.*

Book News and Reviews

Birds of New York. By Elon Howard Eaton. New York State Museum, Memoir 12, Part 1. Introductory Chapters; Water Birds and Game Birds. Albany, University of the State of New York. 1910. 4to., 501 pages, 42 colored plates.

The first of the two volumes of this important work is now before us, and it fully meets anticipations aroused by a knowledge of the labor which has been unsparingly expended in its preparation. Mr. Eaton has shown admirable judgment in the arrangement of his text, and in the selection of material and presentation of data has exercised a care and thoroughness which makes his work authoritative in the highest degree. Thoroughly familiar with previously recorded information in regard to the birds of New York state, he has himself had a wide field of experience in this same area, and he has enlisted the services of many other observers. The volume, therefore, adequately reflects our existing knowledge. The introductory matter contains a 'Summary of the New York State Avifauna,' 'Life Zones of New York State,' with maps of much general interest, 'The Mt. Marcy Region,' 'Increase and Decrease of Species,' 'Suggestions to Bird Students,' 'Bird Migration,' 'Spring Arrivals,' 'Published Local List,' 'County Schedules,' 'Classification,' then, under the head of 'Descriptions of Genera and Species,' and occupying pages 91 to 390, we have descriptions of plumage and sections on 'Field Marks,' 'Distribution,' 'Migrations,' 'Haunts and Habits' and 'Nest and Eggs' of the water- and game-birds of the state.

Lacking space in which to review the text of this work in detail, we can simply unreservedly commend it both as regards matter and manner. It contains a large amount of new material, and constitutes a noteworthy addition to our knowledge of birds.

The forty-two colored plates by Mr. Fuertes, bound at the end of this volume, add in so large a measure to its value and attractiveness that we are not a little surprised to find that the illustrator's name does not appear on the title page of the work. Not since Audubon has there been published such a slpendid series of colored plates of our water and game birds. While the necessity of grouping a number of birds on the same plate has at times necessarily produced an inartistic crowding of figures, we nevertheless have a series of bird portraits which, on the whole, in our opinion, are superior to any that have been made of the same species. The four-color process by which the plates were reproduced has evidently, with few exceptions, done justice to the originals, and as a series, therefore, the plates are fully up to the standard of the text they accompany, an estimate of their worth which we think should be equally satisfactory to both author and artist.—F. M. C.

Cassinia: Proceedings of the Delaware Valley Ornithological Club, No. xiii, 1909. Philadelphia, Pa. 8vo. 66 pages, 1 plate.

'Cassinia' brings its characteristic atmosphere of ornithological good fellowship, the secret of which is sympathetically explained in a delightful little sketch, by George Spencer Morris, on 'The D. V. O. C. and its Twentieth Anniversary.' "Life in the open," he writes, "the love of nature, the joy in her beauties, the touch of adventure, the dash of sport, and then the illusive grace and charm of the wild bird prevading it all—that is ornithology." Certainly it is the kind of ornithology the D. V. O. C. has thrived on, and the writer concludes, "After twenty years we find our little club stronger and more in earnest than ever before, and thus, we meet the future with confidence born of the knowledge that a good work has been well begun." Why are there not more D. V. O. C.'s?

Other papers in this number are a biography of Thomas B. Wilson, D.D., by Witmer Stone; 'Duck Shooting on the

Coast Marshes of New Jersey,' by I. Norris DeHaven; 'Cruising Through the New Jersey Pine Barrens,' by J. Fletcher Streets; 'Nesting of the Broad-winged Hawk and Goshawk in Pennsylvania,' by Robert P. Sharples; 'Breeding Birds of Passaic and Sussex Counties, N. J.,' by William L. Baily; 'Report on Spring Migration of 1909, by Witmer Stone, with an abstract of the Proceedings of the sixteen meetings held during the year, at which the average attendance was nineteen.—F. M. C.

NOTES ON NEW ENGLAND BIRDS. By HENRY D. THOREAU. Arranged and edited by Francis H. Allen. With photographs of Birds in Nature. Houghton, Mifflin Co. 1910. 12mo., pages ix + 452, 14 half-tones, 1 map. Price, $1.75, net.

It was a capital idea of Mr. Allen's to bring together the notes on birds scattered through the fourteen volumes of Thoreau's published 'Journal,' and he has carried it out in admirable fashion, placing the notes under the species to which they belong, arranging these in the sequence of the A. O. U. 'Check-List,' and adding comment when desirable. There is, also, an index to the bird matter in Thoreau's previously published works, 'The Week,' 'Walden,' etc. For the first time, therefore, Thoreau's actual contributions to ornithology are presented in a form which not only renders reference easy but places them within reach of many to whom the 'Journals' are not available.

Mr. Allen's 'Preface' contains what seems to us to be so just an estimate of Thoreau as an ornithologist that we are tempted to quote from it, and refrain only because it should be read in its entirety.—F. M. C.

WILDERNESS PETS AT CAMP BUCKSHAW. By EDWARD BRECK. Houghton, Mifflin & Co. 239 pages, 16 half-tones. Price, $1.50, net.

Young bears, moose, squirrels, Gulls, Ravens and Loons, Uncle Ned Buckshaw and some boys and girls, are the principal actors in these stories. The scene is laid out-of-doors, and the various animals were given freedom, which made them pets in the best sense of the word, permitting the establishment of relations which close captivity in cages forbids. The various pets soon accepted the hospitality of their human friends, and their companionship evidently added not a little to the pleasure and interest of life at Camp Buckshaw; but the tragic ends which a number of them encountered emphasizes the responsibility one assumes in taking an animal from the care of its parents and from its own environment.—F. M. C.

The Ornithological Magazines

THE AUK.—Among the pages of the April 'Auk' is an obituary notice of Dr. Richard Bowdler Sharpe, of the British Museum, which marks the passing on Christmas Day, 1909, of a great ornithologist and one of world-wide reputation. His 'Catalogue of Birds of the British Museum' supplemented by his 'Hand-List' is the only complete list of the birds of the world, and is bound to be the standard for years to come wherever the English language is spoken. No finer monument to his memory can be imagined. Dr. Allen's notice is accompanied by a portrait reproduced from the magazine 'British Birds.' There is also a belated obituary and portrait of Dr. J. C. Merrill, U. S. A., who died in 1902, written by Mr. Wm. Brewster, and still another obituary and portrait of Mr. Chas. Aldrich, written by Mr. Ruthven Deane.

An article deserving of special mention is one by Mr. Leon J. Cole on 'The Tagging of Wild Birds: Report of progress in 1909.' The fastening of metal bands to birds, for the purpose of learning something of their migratory movements, is not a new idea, but Mr. Cole needs the coöperation of all persons interested in birds if definite results are to be obtained. He tells what progress has been made in 'banding' birds and describes the method. 'The Courtships of Golden-eye and Eider Ducks,' by Dr. Charles W. Townsend, is a pleasing contribution to the life histories of these

birds, and 'Notes on the Florida Gallinule (*Gallinula galeata*) in Philadelphia County, Pa.' by Richard F. Miller, shows the difficulties with which nesting birds have to cope, as their haunts are encroached upon by the advance of civilization.

An article on 'Birds Observed in Saskatchewan during the summer of 1909,' by the late Mr. John F. Ferry, is a well illustrated and carefully annotated list of over one hundred of the species found on the prairies of western Canada. Other lists are 'Notes on Some of the Rarer Birds of Washtenaw County, Michigan,' by Messrs. N. A. Wood and A. D. Tinker; 'Bird Notes from Salida, Chafee County, Colorado,' by Edward B. Warren, and 'A List of Birds observed at Ashland, Virginia,' by Mr. C. G. Embody. An 'Apparently New Species of Carrion Hawk of the Genus *Ibycter*,' from Patagonia, is described by Mr. W. E. D. Scott.

In the department of 'General Notes' will be found a number of records of unusual interest, and the reviews concern some important books. A list of the members of the A. O. U. concludes this number, and it may be well to call the attention of those who bind their 'Auks' to the fact that this list takes the place of the one that used to appear in the October number.—J. D., Jr.

The Condor.—Vol. XII of 'The Condor' opens with the fourth part of Finley's 'Life History of the California Condor,' the first instalment of which appeared in the number for November, 1906. The present part, illustrated with six excellent half-tones, deals with the habits of the young bird in captivity. The 'Fossil Birds from the Quaternary of Southern California,' in the Museum of the University of California, are briefly described by Loye Holmes Miller, who calls attention to the preponderance of raptorial birds and the presence of a true peacock, a black vulture, and a peculiar raptorial genus, *Teratornis*, represented by a form much larger than any flying birds of the present time. Oölogy receives due attention in Ingersoll's illustrated account of 'Abnormal Birds' Eggs,' and Ray's 'Defense of Oölogy.' Pemberton adds 'Some Bird Notes from Ventura County,' relating to eight species, and Warren contributes an extended paper on 'Some Central Colorado Bird Notes' on 127 species. This last paper is a welcome change from the others in being free from the peculiarities of spelling which mar so many pages of the magazine, a concession for which the editor considers an apology necessary. 'For the Better Determination of *Agelaius tricolor*' Mailliard gives a few notes and illustrations of wings, and for the benefit of students of distribution Grinnell publishes some 'Miscellaneous Records from Alaska' on 35 species.

Of the half-dozen articles in the March number, three are devoted to nesting habits. Peck describes 'The Effect of Natural Enemies on the Nesting Habits of Some British Honduras Birds;' Willard writes of the 'Nesting of the Western Evening Grosbeak' in the Huachuca Mountains, Arizona, and Pingree tells briefly of 'The Nesting of the Frazar Oyster-catcher, in 1909, on the Tres Marias Islands, Jalisco, Mexico.' 'The Status of the California Bicolored Blackbird' is discussed by Mailliard; 'The Habits of the Black-Capt Vireo' in Blaine County, Oklahoma, are described by Bunker, and an interesting 'Glimpse of Bird Life on the West Coast of Mexico,' near San Blas, is given by Lamb.

But the most striking feature in these two numbers is the rapid molt which certain bird names are undergoing as a result of the policy on which 'The Condor' has 'embarkt.' Eight new bob-tailed names are suddenly introduced: The Russet-backt (p. 16) and Olive-backt Thrushes (p. 43), the Black-capt Vireo (p. 70), the White-rumpt Swallow (p. 78), the Gray Ruft Grouse (p. 42), the Black-neckt Stilt (p. 76), and the Ring-neckt Duck (p. 79). 'Douts' may well be 'exprest' whether such 'markt' editorial idiosyncrasies do more than add a peculiar grotesqueness from which both authors and readers would gladly be spared, if their wishes were consulted.—T. S. P.

Bird-Lore

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Devoted to the Study and Protection of Birds
OFFICIAL ORGAN OF THE AUDUBON SOCIETIES
Edited by FRANK M. CHAPMAN
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Bird-Lore's Motto:
A Bird in the Bush is Worth Two in the Hand

THE American Museum of Natural History's expedition to Mexico, of which, in explanation of the absence of BIRD-LORE's editor, we have given news in our two preceding issues, returned to New York May 1, after having successfully accomplished the work it had in view. Camps were established from sea-level to an altitude of 12,000 feet on Mt. Orizaba, and the ornithological experiences of the members of the expedition were as varied as the difference between faunas characterized, on the one hand, by Parrots, Trogons and Roseate Spoonbills, and, on the other, by Crossbills, Juncos and Evening Grosbeaks, would imply.

ON the preceding page of this issue of BIRD-LORE, Dr. Palmer concludes his review of recent numbers of 'The Condor' with some pertinent remarks on phonetic spelling. Why will authors handicap themselves by presenting their thoughts in words often so strangely spelled that the sense they were designed to convey is in a large measure weakened by the ludicrousness of their appearance? The humor of Artemus Ward's sayings is admittedly largely due to the absurd phonetic spelling which he employed so effectively; but assuredly no scientist should clothe his ideas in a form which appeals primarily to one's sense of the ridiculous.

THE attention of BIRD-LORE's readers is called to the work of the American Bird-Banding Association, as announced in its circular of February 10, 1910. The object of this Association is to record the movements of individual wild birds by attaching to their legs small metal bands so marked ("Notify 'The Auk' New York") that, should a bird so banded ever fall into other hands, this occurrence would be duly reported, and some idea of its travels be thus obtained. "This method of studying migration," the circular states, "has now been employed in a number of European countries for several years, and noteworthy results have been obtained."

The circular continues: "For the benefit of any who may fear that the prosecution of this work may be detrimental to bird-life, it should be stated that the Association is thoroughly in sympathy with the conservative efforts of the Audubon Societies in this country. The shooting of birds for the recovery of bands is in no way a part of the scheme. It is desired to have banding done only by reliable persons, and, should it be found that the banding of any species is doing harm, either from the disturbing of the nestlings, or from other causes, such work on that species will be discountenanced. As a guaranty of good faith, it may be mentioned that the present membership includes not only many of the foremost members of the American Ornithologists' Union but also leaders of the Audubon movement in America."

Applications for membership and remittances of dues ($1 yearly) should be sent to the Secretary-Treasurer, Mr. C. J. Pennock, Kennett Square, Pa. Persons interested in the banding, and caring to assist in this part of the work, should address Dr. Leon J. Cole, College of Agriculture, University of Wisconsin, Madison, Wis.

THE recent victory over the millinery interests won by the National Association and New York Audubon Societies (see beyond page 128), is one of the most notable illustrations of the power of a thoroughly aroused public sentiment in the history of bird protection.

The Audubon Societies

SCHOOL DEPARTMENT

Edited by MABEL OSGOOD WRIGHT

Address all communications to the Editor of the School Department, National Association of Audubon Societies, 141 Broadway, New York City

TWO PROBLEMS IN BIRD PROTECTION — CATS AND CROWS

"THE song birds are comparatively safe from men and boys, this spring," wrote one of our most active game wardens last week, "but cats and Crows form a problem that yet remains to be solved."

Cats and Crows! I heaved a sigh, not of sentiment but of real despair; for it is not only in wild woods and comparatively unprotected meadows and brush lots that the wake of these two arch marauders is marked by empty nests. Here in my garden, within twenty rods of the door, I had just found a Crow's nest in one of the spruces, from which fortress, to break the tedium of sitting, the Crows were making squab-hunting excursions in the garden, even venturing in early morning to rob a nest in the piazza vines, within plain view of my window.

Crows are bird outlaws in all agricultural regions, and are nowhere protected, even if there is no price set upon their heads. Why then are there Crows?

Because they possess cunning in proportion to the apparent stupidity of their appearance, and they have learned the art of self-protection in the school of adversity. As family birds and rulers of their own social communities, there is much to admire in the Crow; but, outside of this commune, they are utterly objectionable.

Their military tactics and scouting abilities are used to enable them to place their bulky nests in the most invisible places; but you will, if you study the matter carefully, find that the nest is most conveniently located near a song-bird-squab market, where, the moment the parent Robin or Thrush leaves the nest, the Crow's black shadow falls, and egg or bird are equally its prey.

It should be the duty of every bird lover to search out the Crow haunts of his neighborhood, and, if it is impossible to shoot the old birds, to destroy the nest as soon as the eggs are laid. The male members of various bird clubs can do a great service by watching Crow roosts at the spring break-up, and locating the various pairs as they separate.

As to the Crow's place in unnature in its dawn, I am not prepared to argue; but in our rural midst he becomes a tramp of birddom, and must be forcibly requested to "move on."

As to the other C—cats—the problem is infinitely more complex; for there are many shrewd people who have not a word to say in defence of the corn thief, who will not hear a word against the cat, the bird hunter by heredity, that even as

a house pet lapses so quickly to the wild that it can never be said that it has become perfectly domesticated.

Allowing for facts—the cat as a rodent catcher, and for sentiment —the comfortable-looking 'fireside sphinx,' much can be done in the cat question without interfering with pussy's real or fancied usefulness.

First, the destruction by local law of ownerless cats, or cats whose owners decline the responsibility of feeding them.

Second, the confinement of pet cats during the time between May 1 and July 1, in large and comfortable cages made of slats and wire, like covered chicken runs. In fact I know of one clever man who constructed such a run at one side of his strawberry bed, thus protecting his crop from the Robins and Catbirds, and their young from the cat, at one blow.

Of course, this caging takes thought and involves considerable extra trouble; and there are a lot of us who mean well and wish the birds well, but it begins and ends there, for many places besides the one originally mentioned in the proverb are paved with good intentions!

After the nesting season is over, *the* cat may be released, and the adult birds can take their chances. Mind you, I say *the* cat, not three cats, their kittens, and a few more that an irresponsible neighbor has left on your stoop, because she was 'too sensitive' to have them drowned, and she knew you to be tender-hearted.

Moderation is always a virtue, but moderation in cats may be regarded as patriotism, as the domestic cat is really an alien who can never be truly naturalized.

—M. O. W.

"On the home grounds from seventy-five to a hundred nests were built every spring, and the broods therein successfully reared for the birds were carefully protected. Cats, Hawks, Crows, Jays and snakes were summarily dealt with; every note of alarm was promptly answered with an efficient rescue, and all the spring and early summer the air was filled with the melody of happy birds."

—Minot's Land and Game Birds of New England, Edited by Wm. Brewster

John Burroughs says that cats probably destroy more birds than all other animals combined.

"We have already introduced into this country a terrible scourge to birds—the domestic cat. My statement heretofore published, that the mature cat, in good hunting grounds, kills on an average, fifty birds a year, is certainly within bounds."

—Edward Howe Forbush.

FRANKLIN'S GULL

By HERBERT K. JOB

The National Association of Audubon Societies

EDUCATIONAL LEAFLET NO. 44

In late April or early May, when the rich black soil has thawed at the surface, the settler of the northwest prairies goes forth to plow. The warm season is short, and his tillage vast, so he delays not for wind or storm. One day he is dark as a coal-heaver, when the strong winds which sweep almost ceaselessly over the prairie hurl upon him avalanches of black dust. Next day, perchance, in a driving storm of wet snow, he turns black furrows in the interminable white expanse, his shaggy fur coat buttoned close around him. Then comes a day of warm sunshine, when, as he plows, he is followed by a troup of handsome birds which some might mistake for White Doves. Without sign of fear, they alight in the furrow close behind him, and, with graceful carriage, hurry about to pick up the worms and grubs which the plow has just unearthed. Often have I watched the plowman and his snowy retinue, and it appeals to me as one of the prettiest sights which the wide prairies can afford. No wonder that the lonely settler likes the dainty, familiar bird, and in friendly spirit calls it his 'Prairie Pigeon,' or 'Prairie Dove.'

It is indeed a beauty, a little larger than a domestic Pigeon, with white plumage, save for the grayish "mantle," the dark slaty "hood" over head and neck, and the black-tipped wings. It often passes so near that one can see that the white underparts have an exquisite rosy blush, which can be likened to that of the peach blossom. In reality, it is not a Pigeon or Dove, but a Gull, one of the several Rosy-breasted Gulls of the northern regions, the Franklin's Gull or, as the earlier ornithologists called it, the Franklin's Rosy Gull, so named in honor of the arctic explorer, Sir John Franklin.

In Audubon's time few white men had penetrated "the Great American Desert," or seen this handsome Gull which Dr. Richardson had discovered in the "fur countries." Audubon himself had never met with it alive, and has no picture of it in his great work, in which he described it from the only two stuffed skins available, brought from the Saskatchewan country, probably by some explorer or fur-trader. Indeed, little has been known or written about it till within quite recent years. Accounts of its habits in the standard works have been very meager and unsatisfactory. It is distinctively a bird of the prairies, ranging over both dry land and marshy lakes throughout the region of the great plains, mostly west of the Mississippi valley, to the Rocky mountains. Its range extends north to the northern parts of the continent, and south in winter to Central and South America.

FRANKLIN'S GULL

Order—Longipennes Family—Laridæ

Genus—Larus Species—Franklinii

Now that these billowy western prairies are teeming with settlers, there are thousands of farmers who know well this beautiful bird. No wonder that it is popular. Its tameness and familiarity are delightful, especially to those who live remote from neighbors of their own kind. Its abundance, too, in some places, is picturesque and spectacular. In the cold days of a Dakota spring, I have seen the air alive with them, as they settled like a snowy blanket upon the dark plowing.

Another fact which should mark it as one of our notably valuable species is that it is largely insectivorous. When in flocks they follow the plow, they are eagerly eating the grubs and cutworms exposed to view. Or, alighting on the prairie sward, they are busy devouring grasshoppers, locusts, and whatever insects come in their way. I have often watched them chasing and catching insects awing, darting about like swallows, either low over the marshes or well up aloft. In a nesting colony in Minnesota, Dr. T. S. Roberts found that the young were fed almost wholly on insects. The stomach of one specimen examined contained remains of fifteen kinds of insects, several of which were notably injurious to man. Most of their food, at this time, consisted of the nymphs of dragon-flies, of which one stomach examined contained 327. Like all other Gulls, they will, when opportunity offers, eat the eggs of other birds, as I once saw one do in a Grebe colony. This, however, was partly my fault, as I had frightened the Grebes from their nests before they had time to cover their eggs as usual, and thus put extra temptation in the Gulls' way. Yet there can be no question but that the western farmer's 'Prairie Doves' are among his most useful, as well as beautiful, allies.

Another attractive element in this bird is its restlessness and mysteriousness. It is nearly always on the move. Faintly come the cries as of a distant flock of Wild Geese or a pack of hounds. Louder and louder grow the voices, and presently the undulating line appears. Leisurely, yet steadily, it sweeps by, and soon vanishes in the distance, whither bound who can tell? Often have I longed to follow and learn their secret. But wherever I might drive with the bronchos and buckboard, I would see their lines still on the move. Where there is a marshy lake, they may often be seen, at times in large numbers, hovering over the rushes or canes, throwing up their wings to settle down, presently to come fluttering up again, parties frequently departing to straggle over the prairie, and other parties arriving, probably passing to and from their distant breeding-ground.

Each spring, in May, all the Franklin's Gulls of a wide region somehow agree to resort to a particular one of the various marshy lakes for the purpose of rearing their young. Just how they decide the important question is not for us to know. At any rate, what they do select is a great area of grass, reeds, or rushes, growing out of the water, and there, out of the abundance of dry stems, each pair builds a partly floating nest, side by side with others, thousands of them. These great cities of the Franklin's Gull present one of the most spectacular sights of bird-life on our continent, comparable, in a way, to the former

breeding-roosts of the lamented Passenger Pigeon, and are well worth great effort to visit on the part of lovers of bird-life, offering particular sport to the hunter with the camera, since the 'game' is both beautiful and readily approachable.

It is no easy matter to locate a colony, as the birds select a wild region and are liable to change their location from year to year. Thus, to ascertain from settlers where they have nested the year before does not assure finding them the next season. The distances over the prairie are so vast that one may easily miss the right location. By dint of driving and tramping for hundreds of miles, during several trips to the Northwest, I have succeeded in finding two of the great colonies. One was in North Dakota, which I have described in 'Among the Water-Fowl.' The other and later experience was out in the broken, rolling prairie country of southwestern Saskatchewan, where there are many lakes and where this Gull is, in many localities, a common bird. Most of the lakes were alkaline, and had no lacustrine grass or rushes favorable for the desired "roost."

The ninth of June began as one of the many cold, lowering days of the unusually wet season of 1905 on those bleak plains, when we started off on another cold drive in search of the elusive colony. The sky was dark with heavy banks of cumuli, with a sinister, autumnal aspect. For five miles the trail meandered up and down over the rolling prairie, then up a billowy ridge. Out beyond us for some miles extended a perfectly flat plain, which in time past had evidently been the bed of a large lake. All that was left of it lay well out in the middle of the area, a long, narrow lake, in two arms, surrounded by a vast area of reeds growing out of the water. In the foreground a big bunch of cattle were feeding. As we drove nearer I noticed a few of the Gulls flying toward the lake or hovering over the reeds. The nearer we came, the more birds were in evidence. Stopping the horse, I looked through my binoculars. There was no longer room for doubt. Hundreds of Gulls, anywhere I might look over a wide area, were fluttering up and alighting. Handing the glass to my fellow-enthusiast, I exclaimed,—"Now you can shout; we have found it at last!"

Driving to the margin of the great marshy flat, where the prairie began to be wet and soft, we halted. Near us began a solid area of reeds that extended out perhaps a quarter of a mile to the first open water. We could now hear the confused chattering of the multitude of Gulls. With cameras strapped to our backs and long rubber boots pulled up, we started in, rather anxiously, fearing that the water might prove too deep to wade, and we had no boat. To our delight it proved to be not over knee-deep. Canvasbacks, redheads, and other ducks kept flying out before us, and Coots and Grebes slipped off through the tangle. We paid them scant attention now, for we were about to witness a sight so remarkable that we had eyes for hardly anything else.

Now the Gulls began to discover us. Rising in clouds, with ear-splitting screaming, they flew to greet us, hovering but a few yards over our heads. The sun was shining brightly through the fast departing clouds, and their white breasts showed clearly the delicate rosy tinge. Here, now, were the first of the

nests at our feet, rude platforms of dead reed-stems, built up from the water among the reeds, which now had a fresh growth as yet only waist high, and thus were not tall enough to impede the view. The eggs were in twos and threes, dark drab in hue, and heavily marked with black. It seemed as though the whole colony must be awing, yet at almost every step new multitudes were startled and rose with tragic screams. In every direction we were encompassed by thousands upon thousands of screaming, indignant, outraged birds. Those whose nests were at our feet darted at our heads with reckless abandon. Most of the eggs had evidently been laid by the last week of May, and a few had already hatched. The birds were quite tame, and when we remained still for a time they would settle upon their nests within a dozen or fifteen feet of us. They were too modest, though, to incubate in our presence, but stood up till we withdrew.

The location chosen by this assemblage was amid a denser growth and in less water than is often the case. The North Dakota colony I found nesting in quite open water, of no less depth than up to one's neck, requiring a boat to reach it. Instead of reeds, a rather sparse growth of meadow grass furnished the support and anchorage for the nests. This was practically the condition of affairs encountered by Dr. Roberts in his Minnesota colony, except that this one was on the edge of a wide expanse of entirely open water, the level of the lake having been raised by heavy rains, apparently after the nests were constructed. The young would swim out from the protecting reeds, when the wind would catch them and begin to blow them out into the rough open water, where they would doubtless perish. The old birds would try to compel them to swim back,which they were unable to do. Failing in this, they would lay hold of the youngsters with their bills and drag or hurl them back to their nests, sometimes wounded and bleeding. Dr. Roberts also confirms my experience, and that of Mr. Bent,— who found this Saskatchewan breeding-ground abandoned the following season,— that these Gulls change their site from year to year, consistently with their generally fickle, roving character. They are inclined to alternate between several attractive locations, and return to a former favorite location in course of time.

With the waning of July the life of these "White Cities" also wanes. The nights grow sharp and chill, the frosts coat the sloughs with incipient ice, and the settler must bid adieu, for a time, to his companionable 'Doves.' Like sailing-craft running free before the onslaughts of Boreas, they carelessly wander onward, to spend their "winter" where winter is but a memory, with choice variety of insect life for daily fare. And when, at length, the northern prairie lakes and sloughs are unlocked from their icy bonds, and the 'Prairie Pigeons' once more course the long deserted expanses, many a human heart is glad. Never may heartless fashion dare to wrong the western farmers and the multitudes who look to him for bread by seeking to appropriate the lone settler's pet— a species important among the feathered custodians of the nation's granaries.

The Audubon Societies

EXECUTIVE DEPARTMENT

Edited by WILLIAM DUTCHER

Address all correspondence, and send all remittances for dues and contributions to the National Association of Audubon Societies, 141 Broadway, New York City

President Dutcher's Departure for Europe

President William Dutcher sailed on May 17 for Europe aboard the steamer Kaiser Wilhelm der Grosse. He goes to attend the Fifth International Ornithological Congress, which will be held in Berlin, May 30 to June 4. Mr. Dutcher will address the section on Bird Protection, and present a plan for a world-wide organization among the nations which shall work for the conservation of wild bird and animal life.—T. G. P.

The New York Plumage Law

On May 7, 1910, Governor Charles E. Hughes, of New York State, signed the Audubon Plumage Bill. Thus ended the most prolonged and hard-fought legislative battle which the Audubon Societies have ever waged for bird protection. For four successive years attempts have been made to secure the enactment of this statute, but in every instance heretofore the opponents of the measure have been able to prevent its being reported favorably by the Committees of the Legislature, to which it was assigned for consideration.

During the past year, a wide and systematic campaign was conducted by the National Association in every county of the state. This educational effort at length so thoroughly aroused public interest that the legislature became aware that the people were strongly for the bill and demanded its passage.

From early in January until the signature of the Governor was secured, the officers of the National Association were in close touch with the progress of the bill, the Secretary, in fact, remaining in Albany nearly one-half of the time. The Forest Fish and Game Commissioner was thoroughly in sympathy with the effort, which added great strength to the cause. Much assistance was also rendered by the Audubon Society of New York State, the Camp-Fire Club of America, representatives of many game protective clubs, and hundreds of individuals working privately.

The opposition to the measure apparently emanated entirely from the wholesale milliners of New York City, who declared that their business would be seriously impaired. The dealers in aigrettes were especially active, being represented by attorneys and others at the hearing given before the Senate and Assembly Committees and the hearing given by Governor Hughes in his reception room on May 3. The milliners also maintained a lobbyist at Albany.

The text of the amended game laws now reads as follows:

"Sec. 98. Certain wild birds protected. Wild birds other than the English Sparrow, Crow, Hawk, Crow Blackbird, Snow Owl, Great-horned Owl and Kingfisher, shall not be taken or possessed at any time, dead or alive, except under the authority of a certificate issued under this chapter. No part of the plumage, skin or body of any bird protected by this section, or of any birds coming from without the state, whether belonging to the same or different species from that native to the state of New York, provided such birds belong to the same family as those protected by this chapter shall be sold or had in possession for sale. The provision of this section shall not apply to game birds for which an open season is provided in this chapter; excepting that Quail, English pheasants and Hungarian Partridges shall not be taken at any

time in Richmond county prior to the year nineteen hundred and fourteen.

Section two hundred and forty of said act is hereby amended by adding a new subdivision to said section, to be known as subdivision eighteen thereof, and to read as follows:

18. Plumage includes any part of the feathers, head, wings or tail of any bird, and wherever the word occurs in this chapter reference is had equally to plumage of birds coming from without the state as to that obtained within the state, but it shall not be construed to apply to the feathers of birds of paradise, ostriches, domestic fowl or domestic pigeons.

This act shall take effect July 1, 1911." —T. G. P.

A Bird Park Established

Mrs. Mary Emery, of Cincinnati, has recently purchased, at an estimated cost of $250,000, a tract containing about two acres of land located near the grounds of the University of Cincinnati, which is to be made a "Bird Park," surrounded by a cat-proof fence.

It has been given to the city, and its improvements and care will be directed by the Department of Biology of the University, the head of which, Prof. H. W. Benedict, is credited with having interested Mrs. Emery in this public-spirited idea.—T. G. P.

Heron Colonies Raided

Word has just reached this office that a colony of Snowy Herons in eastern North Carolina has been 'shot out.' It is reported that the men who did the killing realized something over $70 for the plumes gathered that day from the backs of the birds which were killed. Our information is that the feathers were shipped to a northern market, and, as this is a violation of the Federal statute, known as the Lacey Act, the case has been placed in the hands of the United States Attorney for the eastern district of North Carolina.

Warden W. M. Sprinkle, who patrols certain of the bird colonies on the Louisiana coast, reports that, when he visited Dutcher's island on May 3, he found that it had been plundered by eggers. The two thousand Louisiana Heron nests had been rifled of their eggs and a number of the birds shot.

These cases emphasize the tremendous importance of having the income of this Association greatly enlarged at once, if many of our birds are to be saved. The Snowy Heron is one of the very rarest plume birds in the United States today. We know of two unprotected colonies, each of which could be guarded at a cost of $100 annually, but our present resources are already strained to the limit, and the additional expense cannot now be undertaken. Is there not some reader of BIRD-LORE who is willing to contribute the necessary amount to save one of the few remaining breeding haunts of this aigrette-bearing Heron?—T. G. P.

Some Audubon Field Workers

On January 28 there was organized in the energetic city of Edmonton, Alberta, a Provincial Audubon Society, which gives promise of doing much splendid work for bird and game protection in that section of the Dominion of Canada. The officers elected are president, Glenn B. Chadwick, 1240 Victoria avenue, and Sidney S. S. Stansell, 1025 Sixth street. We shall expect to hear good reports of their activities.

Miss Gretchen L. Libby of Riverside, California, who has been lecturing for the Association and the Audubon Society of California for a number of months past, has been doing some very aggressive work. During the months of February and March she visited forty-one schools in eleven cities and towns and gave one hundred and twelve talks. In this way she was able to reach about six thousand children and over four hundred adults. As a result of the work in the schools, twenty-two Junior Audubon Societies were organized with a total membership of over one thousand, and, as a number of schools have

not yet reported, she expects that membership to be increased by several hundred.

Mr. Ernest Harold Baynes, the active organizer of the American Bison Society, and a well-known writer on natural history subjects, has been employed by the Massachusetts Audubon Society to give a series of lectures in that state. He writes that one result of his work during the first two weeks was the securing of over one thousand new members of all classes for the state society.

Field Agent William L. Finley, now working in Arizona, writes under date of May 10: "One of the most interesting Audubon field meetings I ever attended was on April 30, when Mrs. Finley and I were invited to go afield with some of the members of the Arizona Audubon Society. The objective points were Silver Lake and the Indian School about four miles south of Tucson. Several of the teachers at the school are enthusiastic bird-lovers, and their influence among the one hundred and forty Indian boys and girls is wholesome.

"The commonest bird of the desert here is Palmer's Thrasher, a big, brown fellow, who sings like a Mocker and nests almost entirely in the cholla cactus. The Cactus Wren is his companion, thriving in the heat of the desert and the thorns of the cactus.

"We drove down to the Santa Cruz river, where we began our observations. The first bird seen was a Vermilion Flycatcher. Arizona Hooded and Bullock Orioles were flitting in and out among the cottonwoods. One of the party found a Pyrrhuloxia, a bird that has no common name that I know of. In looks, he is much like a Cardinal, with his high crest, short, thick bill, and breast patch of rose-red. He is the finest whistler I have ever heard.

"In the same bushes where we watched the Pyrrhuloxia, one of the ladies found the nest of a Crissal Thrasher, with its three plain deep blue eggs. A little later, another of the party discovered a Phainopepla building in a mesquite,—another bird that is easily identified by his high crest and shiny black coat. In flight, the white patch under the wing feathers flashes as in the Mockingbird.

"During the afternoon, we also saw Mockingbirds, Cañon Towhees, Lark Sparrows, Verdins, Linnets, Inca and Mourning Doves, Arkansas Kingbirds, Red-wing Blackbirds and others.

"Two nests of the Verdin were found. One might search a long way to find a finer piece of bird architecture than the Verdin's home. He builds a round ball of thorny twigs and mesquite leaves, with a doorway in the side.

"On the way home, we saw many Doves, often in flocks, coming in from the desert at sundown to visit the water holes. It is a sight worth seeing, yet in reality a sad one, when one knows the facts; for at these water holes the Mexican hunter often waits and kills these birds by the score. It it too bad that no law gives them protection in the midst of the breeding-season. Here is work for the Audubon Society.—T. G. P.

Caged Birds Imported

From January 1 to June 1 there were imported to the United States through New York City 98,835 wild birds to be kept in cages. They came largely from the ports of Hamburg and Bremen. An examination of the importations yields a list of about one hundred species. By far the greatest number were Canaries, there being in all 73,458. Of these 5,661 came in a single shipment. Next in number were Java Sparrows, of which 3,428 were received. These figures do not include those birds which died *en route*.—T. G. P.

1. Pine Siskin, Summer.
2. Pine Siskin, Fall.
3. Goldfinch, ad. male, Summer.
4. Goldfinch, ad. female, Summer.
5. Goldfinch, ad. male, Winter.
6. Goldfinch, yng. male, Winter.

(One-half Natural Size.)

Bird-Lore

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OFFICIAL ORGAN OF THE AUDUBON SOCIETIES

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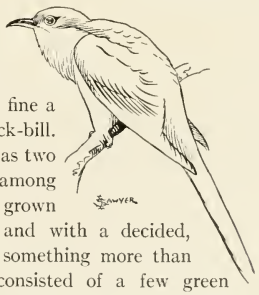
The Black-billed Cuckoo at Home

By EDMUND J. SAWYER
With a photograph and drawings by the author

EVERY observing bird student knows what is meant by the unbirdlike species—certain not necessarily uncommon, but hardly familiar birds. Some of them are the Woodcock, Cuckoo, Whippoorwill, Nighthawk, Chimney Swift, Hummingbird and, to some extent, the Brown Creeper and Marsh Wren. There is a strangeness about these birds, something by virtue of which we are not allowed to pass them with the mere glance we might bestow upon others which, it may be, we chance to know even less about. In some, this strangeness is slight and vague; in others, it amounts to an air of mystery which hangs about the bird like a veil. Of the latter, the Cuckoo is a striking example. Wherever seen, a Cuckoo invites our thoughtful attention; there is always the same engrossed, preoccupied bearing, always that suggestion, to a greater or less extent, of the mystic.

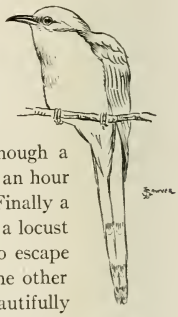
On June 17, 1909, at the foot of a slight, sandy ridge covered with a scanty growth of small oaks, locusts and pines, a Cuckoo slipped silently from a small patch of hazel, or similar bushes, at arm's length from me. She alighted low in a pine a few yards off, and at once proceeded to dress her feathers, giving me as fine a chance as could be wished to identify her as a Black-bill. There was the nest with its two dull blue eggs. It was two feet off the ground, resting on a fallen, dead locust among the branches of which the shoots of bushes had grown up. Made of long twigs and stiff grass stalks, and with a decided, though moderate, hollow rather well lined, it was something more than a mere griddle of crossed sticks. The lining consisted of a few green leaves under a thin sprinkling of dry, brown, shriveled oak and similar catkins. The nest was so plainly exposed from above, and so little concealed from the



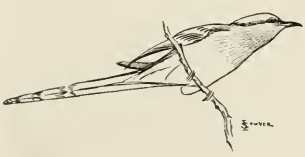
side, that it seemed certain of discovery by any one passing that way. In a stay of ten minutes, I did not see the bird again.

My next visit was on June 21. From this date until July 6, I made trips every few days, spending from three-quarters of an hour to four hours or more near the nest, each time. How rich and varied would have been such observations about the nest of a Wren, a Robin or some Warbler, or any of a hundred others of our common birds! And how comparatively little of real insight did they yield in the case of these uncanny birds!

At first, I usually found one of the old birds on the nest, and occasionally when the young were several days old. The eggs hatched between June 22 and 24. On the 29th both old birds came about, and remained within several yards of me for the forty-five minutes that I spent sitting twenty-five feet from the nest. The young would "beg" for food when I shook the bushes about their nest; and, as they stretched up their heads, I could see the broken egg-shells under them. The following day I found only the female about. She called now and then, as usual since my first visit, but no mate appeared, though a Cuckoo did occasionally call somewhere at a distance. Half an hour went by, then an hour, and I had given him up for killed. Finally a Cuckoo came, and swooped gently at the female perched in a locust tree. He alighted on the branch she had left just in time to escape him. There he stood, with slowly rising and falling tail, the other bird being a yard or two in front, he raised his tail beautifully expanded. There was no attempt at pursuit, not a flutter nor a note; in a few minutes the late comer sailed down over some bushes, and so out of sight, as quietly as he had made his appearance on the scene. The sexes are indistinguishable in the field, but I felt sure which was which in this apparent courting scene.



Two days later, one of the Cuckoos flew up from the bushes about the nest, and, still I found a Cuckoo occupying the latter. The suggestive scene in the locust at once occurred to me, and I hoped to see, after all, an instance of that remarkable anomaly, well known with Cuckoos, of young birds and fresh eggs in the nest together. From my accustomed seat eight or ten yards away, I watched the sitter, patiently waiting for her to quit the nest. In the meantime, the bird which had flown from near the nest had at once proceeded to dress his feathers, as if he had been sitting—as, for aught I know, he had. I have seen Waxwings sitting "tandem" on their eggs in cold weather.



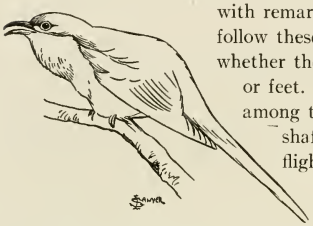
After a while, the sitting bird deliberately called a few times from the nest—a few of the usual *kuk-kuk* notes. A few minutes still later, she bent her head under her breast, as if examining the nest contents under her, or, as I thought, looking to the egg she had just laid; next she hopped to one of the shoots beside the nest, then flew to a nearby tree. How eagerly I went forward, only to behold the two callow young, no eggs. It was early morning, somewhat cold and misty; the old bird had simply been brooding her bantlings.

NEST AND TWO YOUNG OF BLACK-BILLED CUCKOO

Well, she had called while sitting on her nest, that was something! As usual, she was alone during most of my stay,—about two hours on this occasion. As usual, too, she moved from tree to tree, hunting caterpillars, frequently calling, occasionally dressing her feathers, and often sitting on one perch for a minute or two at a time; but her head was seldom at rest for more than a few full seconds at a time and, in consequence, the caterpillars fared ill. Now it was some little chap near the thorny trunk of a locust, and now a big brown fellow discovered on a topmost twig. With one of these brown worms held near the end of her bill, she once spent several minutes within some ten feet of her nest, apparently intent on feeding the young, but there was no hint of the anxious, nervous fidgeting of a bird driven to approach her nest

under siege. After a while the food was missing; apparently she had swallowed it, having decided that her young could wait a few hours longer, since the enemy seemed inclined to stay awhile. The nestlings were never fed while I was about, nor did their parents once exhibit the least impatience.

The actions of these birds are characterized by a peculiar gliding quality. Extremely slender and graceful, they move among the close-growing branches with remarkable ease and speed. The eye can scarcely follow these motions. It is well nigh impossible to tell whether the bird moves most by the aid of wings, tail, or feet. The long tail is closely folded, in progressing among the branches, and seems to act just like the shaft of an arrow in sustaining its owner's flight, if that elusive sliding through space can properly be so called. For the most part, it is only in quick turns and in sudden reaches far out or abruptly down from a perch that the tail is somewhat expanded.



The bird assumes no special pose in calling, but, the feathers of the throat and upper breast being much expanded in this act, the Cuckoo has, in some positions especially, an odd or ludicrous appearance while sounding his strange notes. There is nothing bird-like about this sound. Usually heard from a hidden source, one might imagine a boy, hidden in the thicket, experimenting with a "devil's fiddle" made from a thin wooden box instead of a tin can. Nor is the unnatural element much lessened by catching the bird in the act; there he sits, apparently in a brown study, dispassionately voicing in those weird *kuk-kuks* the meditations of a hidden mind.

It is questionable if any degree of familiarity possible with the Black-billed Cuckoo would dispel this atmosphere of secrecy in which he seems ever to move and have his being. In the presence of this strange character, I can well believe one might make a life study of the species, and still perceive that same haunting inscrutability.

About July 6, the nest was empty. I had learned a little—a very little—of Black-bill ways; I had seen a good many, possibly nearly all, of his poses, and made some fifty distinct sketches of them. But the Cuckoo I had sought to know and had hoped to think of henceforth, with the Robin, Oriole and Song Sparrow, as an intimate acquaintance, remained a Cuckoo still—a recluse, a forbidding, hidden character.

Some Bird Orphans

By MISS L. H. SCHROEDER, Amsterdam, Montgomery Co., N. Y.

JUNE 12, 1909, a junior member of the Audubon Society brought me a little rusty-looking bird, fully feathered, but perfectly helpless. The boy said he found him near the river, and his father said it was a young Crow, and wanted to have it killed. I could not say what sort of a bird it was; but it was a bird, and must be cared for. He was too young to take food, and for many days I was obliged to force open his bill and feed him. Slowly he grew, and learned to take food. In July, his feathers began to change; his head became a beautiful blue, and the wings and tail an iridescent purple and I knew that it was a Bronzed Grackle. He then ventured to fly on the limb of a tree near the door, but came at my call at any time, walking in and out at his pleasure during the day, and never failing to come in early each evening, to be put to bed in his cage. If went out he followed me like a little dog, and I was obliged to steal out to go on the street.

It would fill many pages were I to recount the amusing things he did during the day. One of his favorite places was a shelf in the kitchen on which stood a clock and a number of other things which interested him very much. He would work with great energy until the clock door was opened, and then watch the pendulum go back and forth. Among the things on the shelf was a basket filled with balls of cotton and other material for mending; all these he threw on the floor, one by one, and, when the basket was empty, he sat in it seemingly much pleased with his new bed. Often, when I was at dinner, he would sit on my shoulder and watch, and in a moment his bill would be in my ear and he would fairly shout. At breakfast, he generally sat in my lap and had his share of toast and coffee, drinking the coffee from a teaspoon.

It has been said that the Grackle is fond of corn, and does considerable damage to corn-fields. I experimented with cracked corn, green corn, boiled corn, canned corn, and corn in all shapes, but he would have none of it; but a nice fat berry bug or a succulent spider were never refused. He would not touch any sort of fruit, but a cracker, a bit of cake, or a little roasted or boiled meat were eaten with a relish. Sometimes he would fly on my shoulder and put his bill in my mouth, to force it open, and then examine my teeth, to see if they were firm,—not a very pleasant proceeding when I thought of the berry bugs and spiders! As the summer advanced, he took long flights to the woods, and at times was gone for hours; but he always returned to his home, and came to my hand at my call anywhere. When the leaves began to turn, I expected him to go southward; but September came and passed, and he seemed to have no thought of going. October 18, in the morning, he seemed restless, and finally flew away, and, as it had grown quite cold, I felt sure he had migrated. October 22, he returned, and came to the window to be let in out of the cold, and when I went out he flew to my shoulder and expressed his joy in every

possible way. He remained here until October 25, when, after spending Sunday and the night in the house, he winged his way southward, leaving a lonely feeling and the hope to see him again in the spring.

Among the other bird orphans brought to me by children, were two Flickers. They were most beautiful but I was at a loss to know how to raise them. I could not put them in a cage, so I set up dead limbs of trees in an empty room and found this worked to perfection. To find the right kind of food was another puzzle, but at last I found bananas to be the thing; in fact

A YOUNG GRACKLE

one of them was raised entirely on bananas, while the other would eat boiled veal, strawberries, cherries, and boiled green peas. The intelligence of these little creatures was wonderful. They soon learned to know my step, and would call loudly when they heard me come up the stairs, and the moment I opened the door one would be on my head or shoulder. Often in the night, I was awakened by their talking in their sleep, this I never observed in any other bird. When they learned to eat from a dish, I would set the food on the floor and leave the door ajar, to peep in to see the two little ones eat, and hear them talk to each other as if they were pleased with their bill-of-fare.

A little Bank Swallow ought also to be mentioned. A boy brought one to me when it was so small that I could not see it's bill without glasses, and it seemed almost impossible to force it open and feed it; but the little thing was so bright and cheerful that it was worth any amount of trouble to raise it. I had made arrangements to go to the Catskills three days after it was brought to me, and took it with me, feeding it on the train and boat. As it grew older, I found the diet of bread, milk and eggs would do no longer so engaged children to help catch flies. In one afternoon my tiny Swallow consumed eighty-five large flies, which shows what a large number of insects they destroy.

Cliff Swallows

By FRANK A. BROWN, Beverly, Mass.

With a photograph by the author

SKIMMING abundantly over the fields of grass and alders, digging in the clayey mud along the seashore and inland streams, the easily identified and confiding cliff Swallow is one of the most common and abundant residents of eastern Maine and of the Nova Scotian valleys. Where I have watched it during the last season, in Washington county, Maine, and the vicinity of Grand Pré, N. S., it outnumbered by far all the other Swallows. Scarcely an available barn, in certain spots, but has its nests in varying quantities. On one small barn I counted one hundred and seventy-eight of the clay nests hanging in rows and clusters from one side alone, and many others have easily supported at least one hundred nests. From these colonies the birds are continuously circling the immediate door-yards of the barns and houses, and flying abroad over the orchards and fields on easy wing in pursuit of food and pleasure. At night and morning, especially, and at certain other times of the day, all of the Swallows of the colony seem to be on the wing in the vicinity of the nests. At other times there are simply individuals going and returning from greater distances.

I have carefully questioned many farmers, from place to place, as to their disposition toward the birds, and have found in practically all cases much love for the little fellows. Their coming is eagerly looked for and welcomed in the spring, and their cheerful company and confident tameness are the especial joy of the children. As well, all the testimony was to the effect that the flies and mosquitos were noticeably decreased by their presence. To make a rough estimate of their benefits to the farmers in the consumption of insects, I lay on my back close by a small colony, and, by watching for half an hour a nest where there were four young birds, estimating two or three insects being brought at a feeding, about nine hundred would be consumed by that family each fifteen-hour day of its rearing.

The seeking of mud for the nest-building I found particularly interesting to watch. In one place was a trench dug some five feet deep, and with a most inviting bed of soft sticky clay at the bottom. The Swallows were making the most of the opening of such a mine, and, through the entire forenoon that I observed them, they flocked in numbers and worked most conscientiously. As they were so fearless in flight, not hesitating to come within a foot or two, I thought it possible to watch them within some ten or fifteen feet, by getting down into the trench and remaining quiet; but, after some twenty minutes of it, I found that it would not work, and that I was only wasting their precious minutes of a pleasant June day. So, having a brown poncho, I fastened it by rocks across the trench, got a box for a seat behind it, and, hiding in its shelter, was within a few feet of them in as many minutes. They came in eager

succession, fluttering down, feet dropped, ready to settle lightly on the soft mud. The moment the feet touched ground, the body and tail were well up, so as not to soil those sleek feathers, and the wings extended straight over the back, continually fluttering to keep the feet from sinking or sticking. Mouthfuls of the clay were quickly gathered, the wings continually shaking, and soon the Swallow was off. Every one was busy, mostly mindful only of his own affairs; but now and then a tiff occurred, where two wanted the same spot. Every newcomer called softly, and those flying above and across were musically happy.

The nests are none too well fastened to the rafters, and a heavy rainstorm at the wrong season destroys many of the young birds and eggs. The gathering of the families and clans takes place early, so that late August sees the majority gone for the season, to return again to their old homes with another spring.

CLIFF SWALLOWS GATHERING MUD

The Migration of North American Sparrows

FIFTH PAPER

Compiled by Professor W. W. Cooke, Chiefly from Data in the Biological Survey

With Drawings by Louis Agassiz Fuertes

(See frontispiece)

PINE SISKIN

The Pine Siskin breeds in southern Canada, the extreme northern United States, and in the mountains south to North Carolina and New Mexico.

In the winter it extends its range almost, if not quite, to the Gulf coast; but, at the same time, some individuals remain through this season almost at the northern limit of the summer range, making it impossible to obtain any dates of arrival or departure over most of the northern United States. In addition, the Pine Siskin is one of the most irregular birds in its migratory movements. One winter it may be present in thousands, and none be seen again for several years. It was particularly abundant in the winter of 1906–7, and remained unusually late during the cold spring of 1907.

SPRING MIGRATION

PLACE	Number of years' record	Average date of the last one seen	Latest date of the last one seen
Northern Florida	2	March 22	March 26, 1890
Greensboro, Ala.			March 30, 1888
Southern Mississippi	2	April 15	April 19, 1902
Kerrville, Tex.			May 29, 1907
Marfa, Tex.			May 26, 1890
Charleston, S. C.			April 19, 1909
Raleigh, N. C.			May 9, 1885
Washington, D. C.	3	May 16	May 20, 1904
Northern New Jersey	5	May 18	June 15, 1907
St. Louis, Mo.			May 23, 1907
Chicago, Ill.			June 9, 1907
Oberlin, Ohio	5	May 10	May 20, 1907
Southern Michigan	5	May 12	May 23, 1897
Grinnell, Ia.	4	May 18	May 30, 1890
Manhattan, Kans.	5	May 10	May 16, 1885
Blue Rapids, Kans.			May 28, 1907
Lincoln, Neb.			May 23, 1899

FALL MIGRATION

PLACE	Number of years' record	Average date of the first one seen	Earliest date of the first one seen
Quebec City, Canada			August 8, 1890
Southern Maine	4	October 12	August 11, 1906
Eastern Massachusetts	4	October 17	October 13, 1891
Northern New Jersey	5	October 10	October 3, 1908
Renova, Pa.	5	October 13	September 30, 1896
Philadelphia, Pa.	3	October 18	October 12, 1884
Washington, D. C.			October 24, 1889
French Creek, W. Va.	2	October 12	October 6, 1892

FALL MIGRATION, continued

PLACE	Number of years' record	Average date of the first one seen	Earliest date of the first one seen
Raleigh, N. C.	4	November 11	November 3, 1886
Central Wisconsin	3	October 14	September 5, 1903
Chicago, Ill.	3	October 8	September 18, 1896
Oberlin, O.	2	October 20	September 26, 1896
Grinnell, Ia.	2	October 21	October 14, 1889
Lawrence, Kans.			September 30, 1905
Fredericksburg, Tex.			October 17, 1894

The average of nine years' records at Aweme, Manitoba, of spring arrival is May 19, and the earliest May 4, 1901; Columbia Falls, Mont., April 10, 1894; Edmonton, Alberta, May 20, 1909; Godbout, Quebec, March 26, 1888. The average of the last seen at Aweme, Manitoba, is October 30, and the latest November 6, 1908; Quebec City, Canada, December 18, 1888.

GOLDFINCH

The Goldfinch, represented by the three races mentioned in the succeeding article, ranges from ocean to ocean, spends the winter principally south of the forty-third parallel, and breeds, for the most part, north of the thirty-fifth parallel. In the region between these two parallels, it is found all the year. But, in addition, it occurs irregularly in winter over much of the northern United States and even sometimes in southern Canada. The great bulk of the Goldfinches migrate late, but a few wander from their winter stations at an earlier date, and the records of the real migration are so mixed with records of these wanderers and of winter birds that no exact statement can be made of the date of migration throughout most of the United States. A good example of this irregularity is found in the dates of the first seen at Ottawa, Ontario, where the following are the dates of "arrival" for twenty-two years: January 14, 29, February 10, 13, 28, March 5, 8, 13, 15, 25, 28, April 7, 11, 12, 17, 26, May 9, 10, 13, 14, 22, 25. It is obvious that where the dates of arrival extend over four months no exact average date can be obtained.

SPRING MIGRATION

PLACE	Number of years' record	Average date of spring arrival	Earliest date of spring arrival
Alfred, N. Y.	17	April 25	March 9, 1898
Eastern Massachusetts	19	May 5	Occasional, winter
Plymouth, Me.	18	May 3	April 23, 1885
Scotch Lake, N. B.	7	May 18	February 15, 1901
St. John, N. B.	6	May 20	April 12, 1895
Chatham, N. B.	15	May 27	May 20, 1891
Pictou, N. S.	8	May 16	May 1, 1889
North River, Prince Edward Island	4	May 31	May 10, 1889

SPRING MIGRATION, continued

PLACE	Number of years' record	Average date of spring arrival	Earliest date of spring arrival
Sherbrooke, Que.	4	May 19	April 26, 1903
Montreal, Que.	5	May 22	April 6, 1908
Godbout, Que.			June 7, 1884
Chicago, Ill.	11	May 3	Occasional, winter
Saginaw, Mich.	4	May 4	March 18, 1901
Sault St. Marie, Mich.	4	May 22	April 7, 1890
Galt, Ontario	9	May 11	May 2, 1899
Ottawa, Ontario	11	May 14	Occasional, winter
Northeastern Minnesota	7	May 18	May 9, 1896
Southern South Dakota	9	May 17	May 5, 1901
Northwestern North Dakota	17	May 22	May 15, 1894
Aweme, Manitoba	14	May 19	May 12, 1896
Qu'Appelle, Saskatchewan	4	May 19	May 6, 1904
Yuma, Colo.	4	May 20	May 12, 1905
Cheyenne, Wyo.			May 15, 1889
Sheridan, Wyo.			May 22, 1907
Rathdrum, Idaho	5	May 18	May 9, 1903
Fort Custer, Mont.			May 3, 1885
Terry, Mont.	6	May 28	May 21, 1900
Big Sandy, Mont.	5	June 6	May 28, 1906
Edmonton, Alberta			June 4, 1907
Carson City, Nev.			April 29, 1900
Newport, Ore.	3	May 3	May 1, 1901
Okanagan, B. C.			April 5, 1908

FALL MIGRATION

PLACE	Number of years' record	Average date of the last one seen	Latest date of the last one seen
Okanagan, B. C.			November 1, 1905
Big Sandy, Mont.			October 16, 1906
Aweme, Manitoba	13	October 12	October 22, 1907
North River, P. E. I.	3	October 7	October 15, 1888
Halifax, N. S.			December 5, 1895
Southern New Brunswick	7	November 13	December 5, 1902
Montreal, Que.	3	October 5	November 4, 1908
Ottawa, Ont.	7	October 21	December 28, 1885
Galt, Ont.	5	November 10	December 2, 1902
Palmer, Mich.			November 6, 1893
Southern Michigan	7	November 11	November 24, 1904
Chicago, Ill.	3	November 16	December 25, 1906
Southern Maine	9	November 12	Occasional, winter

In fall migration, the first arrive, on the average, in northern Florida, November 16, earliest, November 15, 1906; southern Mississippi, average November 10, earliest November 3, 1906; Covington, La., November 12, 1904. On the return in the spring, the last leave northern Florida, on the average, April 4, latest, April 14, 1887; Savannah, Ga., average, April 18, latest, May 14, 1894; southern Mississippi, average, April 11, latest, April 23, 1902; New Orleans, La., average, April 4, latest, April 11, 1896; San Antonio, Tex., May 2, 1890; Gainesville, Tex., May 5, 1885.

Notes on the Plumage of North American Sparrows

FOURTH PAPER

By FRANK M. CHAPMAN

(See frontispiece)

Pine Siskin (Figs. 1,2). The Pine Siskin's streaked underparts and yellow wing-marks (the latter showing more plainly in flight) are its distinguishing characters. The sexes are alike in color. In worn breeding-plumage the streaks below become more sharply defined, and there is no yellow or buff suffusion.

The juvenal plumage is strongly suffused with yellow, particularly on the underparts, but this is lost at the postjuvenal molt, when the young bird acquires a plumage essentially like that of the winter adult.

There is no spring or prenuptial molt, the black-and-white appearance of the breeding-plumage being due to wear and fading.

Goldfinch (Figs. 3–6). No difficulty will be experienced in identifying the Goldfinch, both its colors and notes being distinctive; but its marked changes of plumage may lead one to confuse the sexes. At the postnuptial molt, the gold-and-black adult male (Fig. 3) loses his bright yellow body feathers, which are replaced by others resembling those of the winter female; but the new feathers of the tail and wings, like those of the nuptial plumage, are black with white markings, and the 'shoulder-patch' is yellow (Fig. 5). This plumage is worn until the following April, when the body feathers alone are molted and the bright yellow plumage regained.

The young male (Fig. 4) at the postjuvenal (fall) molt changes the brown-washed body feathers for others resembling those of the adult male in winter, but it retains the wings and tail of the juvenal dress. These are much browner than those of the adult, the white markings are washed with brownish, and the lesser wing-coverts, instead of forming the bright yellow shoulder-patch of the adult, are but faintly or not at all washed with yellow and are bordered by whitish, giving two wing-bars instead of one as in the adult.

At the spring molt, the young bird acquires a yellow body plumage and black cap, like that of the adult, but the wings and tail are not molted until after the breeding-season (postnuptial). In its first breeding-season, therefore, the young male may be distinguished from the fully adult male by the colors of its wings and tail, which are brownish instead of black, and by the absence of the bright yellow shoulder-patch.

The adult female (Fig. 2) in summer plumage is almost as bright below as the male, but the uniform, brownish olive-green upper parts and the absence of a black cap at once distinguish her. After the postnuptial molt, however, she cannot be certainly known from the young male.

The Pale Goldfinch (*Astragalinus tristis pallidus*) of the Rocky mountain region is somewhat larger, and, in winter plumage, decidedly paler, while the Willow Goldfinch (*A. t. salicamans*) of the Pacific coast is slightly smaller and darker than the eastern form.

Notes from Field and Study

A Trait of the English Sparrow

The pleasure of many a stroll in the May woods, particularly during the end of that month, has been spoiled, either completely or partially, by a small green caterpillar, or inch-worm. This annoying little pest has a habit of suspending himself from the branch of the tree on which he probably was born, by means of a long, delicate, silk thread, which is visible only as it shimmers in the sunlight. Consequently, when one walks through a piece of woods infested with these inch-worms, it is not long before one's clothing is covered with them and their fine, suspending threads. Sometimes, too, the threads cling to one's face, and if the day is at all hot and humid, as so many of our days are, the sensation is anything but pleasant. Still less agreeable is it to have a worm strike one's face, and then insist upon exploring it.

After a few experiences with these most annoying nuisances, one is ready to welcome with open arms anything that will aid in any way in destroying them. It is a rather curious case of poetic justice that the friend in need should turn out to be the much criticised, condemned and despised English Sparrow.

In the spring of 1907, they first attracted attention in a little piece of woods on the western edge of Bronx Park that was thickly infested with the inch-worm pest. Every now and then, one of the Sparrows would fly a few feet from the ground, hover in air with beating wings, descend, and then repeat the whole performance. Selecting one and watching him carefully, it was soon discovered that he was busy capturing and devouring the small green caterpillars that made walking unpleasant. Since then, the same thing has been observed each spring.

The Sparrows are not content with catching one caterpillar and eating that before seizing another, but they must needs continue catching until their bills can hold no more, then they rest either upon the ground or on the lower branch of some tree and finish their meal. They, evidently, regard these inchworms as a great delicacy, for it is an exceedingly difficult thing to compel them to drop any of them, even when their bills are so full that the caterpillars hang out on all sides. Nor, when they have deposited them upon the ground preparatory to eating them, does a quick and sudden rush cause them to leave any; on the contrary, the bird quickly seizes them, and then flies with them to the nearest low branch.—Edwin W. Humphreys, *New York City.*

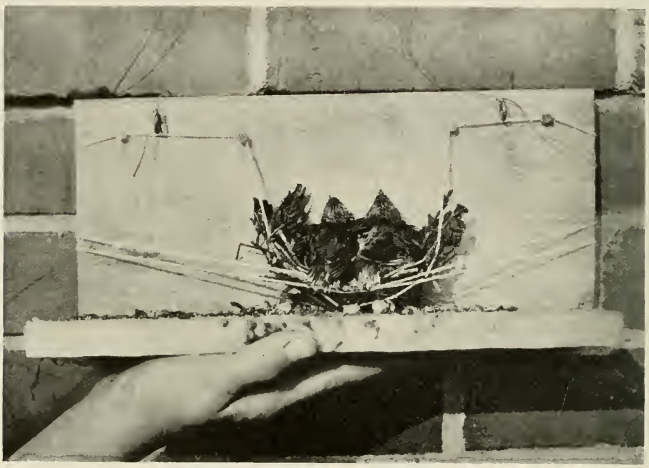
Replacing a Fallen Swift's Nest

In the summer of 1908, I unexpectedly found that a Chimney Swift's nest, with three young, had fallen into one of our fireplaces. The young birds were small, probably not more than three or four days old. At first I tried feeding them milk by means of a medicine dropper, but this proved useless, the weakest of the three dying in about four hours. When I decided to try to get them up into the chimney, where the old bird could take care of them. The method adopted proved simple and successful. Two boards were nailed together, as shown in the accompanying photograph, and the nest was fastened onto the vertical board. The lower board was provided principally to keep the nest from falling down the chimney again, in case the string should happen to break. I then put the two remaining young ones into the nest and climbed up onto the roof. The whole thing was lowered, by means of string, down into the chimney, and fastened when it was about twelve feet below.

The young were very weak when they were put down the chimney, but they

recovered rapidly and were in a vigorous condition twenty-four hours later. Observations, made a few days later, showed that they were in no further danger from falling, as they had left the nest and were clinging onto the sides of the chimney.

It seems that Chimney Swift's nests have the unfortunate habit of falling down into fireplaces when they contain



A REPLACED CHIMNEY SWIFT NEST

half-grown young birds. I have also noticed that people on such occasions are inclined to waste a lot of time grieving over the fact that nothing can be done to save the poor, dirty, helpless young ones. People generally seem anxious to do what they can to save the birds, but in most cases they think that nothing can be done. The method described here, is simple and easy when the top of the chimney is accessible, and could probably be used in the majority of cases.—L. P. Emerson, *Cambridge, Mass.*

Curios in Nests

While driving along a country road last spring, I noticed some Barn Swallows skimming over the meadows. Presently one of them flew to the side of a school-house (a small frame building), and there, a short distance beneath the eaves, plastered against the outside wall, was a nest, which turned out to be a real Barn Swallow's nest. The birds went to the nest again and again, showing that it was their own. I could scarcely believe my eyes. Heretofore all the Barn Swallows' nests I have found were inside of a barn, plastered against a rafter or beam. It was not a Cliff Swallow's nest, for it was not bottle-shaped, but was open at the top, and had a good deal of down and grass mixed with the clay. Besides, a bird student could not mistake one species for the other.

The other day I was called to see a curiosity in English Sparrow's nests. Right beneath the eaves of a friend's veranda roof were two curved ornamental brackets between four and five inches apart. Without a support between them, no nest could have been built there. Now, here is the odd thing: In some way the birds had managed to lay a corn-cob on the brackets, thus connecting them and

making a sufficient flooring for their nest. Here they had piled and woven together a lot of material, in the top of which, right under the eaves, they had formed a cosy nest, and had reared at least one brood, perhaps two, as they began to breed early in the spring. My friends insist that no person had, to their knowledge, placed the cob there, nor do they believe any one did. What motive could any person have had for putting a cob in such a place? The birds left one end of the cob extending out on the near side of the nest, affording them a perch to stand on while they fed their bantlings. My friends and I can come to only one conclusion—that the Sparrows themselves carried the cob up to the brackets and placed it in position. But how did they do this? The cob was a good-sized one. Do other observers know of similar instances? — LEANDER S. KEYSER, *Canal Dover, Ohio.*

CANVASBACK, BALDPATE, AND, IN FOREGROUND, A PAIR OF TAME MALLARDS
Photographed by W. C. Levey

Some Rare Ducks Wintering Near Boston

It is the custom with the park authorities in Boston, when the ponds are freezing, to catch the tame Ducks and put them in winter quarters. For several years past, a number of the tame Mallards have refused to go into the cage, and have flown about during the winter from place to place in the park system, seeking the small open places of water.

One of these refuges, always open, is near the lower end of Leverett Pond. This pond is a small body of water bordered on one side by the most populous part of Brookline Village, and crossed at its lower end by a broad thoroughfare, on which pass a constant stream of vehicles and electric cars. The waters of a good-sized brook, led underground through the village and becoming tempered thereby, empty into the lower end of the pond, and prevent it from ever entirely freezing over.

Jamaica Pond is another and much larger body of water, a little farther up the same park system. With the tame Ducks acting as decoys, many migrating Ducks are attracted here in the fall. Most of these Ducks remain contentedly until the pond freezes over, when they, presumably, seek a warmer clime.

During the winter of 1908–1909, however, a male Baldpate, a rare Duck in this vicinity, stayed on Jamaica Pond

until it froze over, and then followed the tame Mallards down to Leverett Pond, where it remained until the spring. To my knowledge, this is the first Baldpate ever seen on these ponds. Last fall, three males and one female Baldpate, a male Canvasback, a male Ring-neck Duck, and a female Redhead, appeared on Jamaica, and afterward spent the winter on Leverett Pond.

MALE BALDPATE
Photographed by W. C. Levey

Associating as they did with the tame Ducks, they soon became very tame themselves, and would come in and take food thrown to them. Thus I was able to get a number of pictures of them.—W. Charlesworth Levey, *Brookline, Mass.*

Early Appearance of Gulls on Cobalt Lake, Ontario, Canada

Cobalt Lake is a small body of water one mile long and a quarter-mile wide, on which is located the town of Cobalt, on the T.& N. O., or Ontario Government Railway. A number of silver mines of the district adjacent to the lake use the water of the lake for their steam-plants. Besides the hot water returning from the exhausts of some of the engines, there is also a constant stream of heated water running into the lake from the water-jackets of the mine compressors. This has a decided influence on the general temperature of the lake water and, as a consequence, the ice leaves the lake earlier than formerly, and sometimes as much as two weeks earlier than any of the surrounding lakes. This year the lake opened on March 31, and within twenty-four hours two Herring Gulls were seen floating in the lake, or hovering gracefully above its surface in search of food. It is remarkable how soon these birds were able to find the open water, when one remembers that all the other lakes for hundreds of miles around were still covered with solid ice.—Arthur A. Cole.

Great-Crests Nesting in a Box

A cherry-tree, twenty-five feet from our kitchen window, has three boxes in it. One has an opening only just large enough to admit a Wren; the other two will

accommodate any bird of this locality seeking such a home. Bluebirds have been nesting in one or the other of the two suitable boxes for years, never in both at the same time. Sometimes they have had Wrens for neighbors, and sometimes they have succeeded in keeping the tree to themselves. This year, the Blues came and looked the houses over, but finally decided that the orchard offered greater inducements. A pair of Wrens early pre-empted the box with the protective doorway, while a pair of Great-crested Flycatchers were industriously examining into the desirability of the others. On May 25, the Great-crests set to work in earnest, building in the box next to the home of the Wrens—only about eight feet away. Now, June 13, the nest is complete, the eggs are laid, and everything is lovely; that is, it might be if the neighbors were a little more neighborly. The Wrens seem to have great respect, if but little love, for their big neighbors, while the Great-crests do not seem to have much of either for their puny ones. The Wrens are never seen near the home of the Great-crests, while the latter persistently torment their little neighbors. One of them will sit at the Wrens' door for five minutes at a time, unable to enter, but impudently peeping in, to the great disgust of the outraged householders.—Egbert T. Bush, *Stockton, N. J.*

Purple Martin Increasing

During the spring of 1909 and 1910, I have distributed several hundred copies of National Association Special Leaflet No. 2, "The Purple Martin," to schools and individuals. The result has been gratifying beyond expectation. Just a few years ago, the Purple Martin was a scarce article, almost an unknown quantity. Now I am confident that a hundred pair, or more, can be found within a radius of three miles. After distributing the leaflets, bird-boxes went up on all sides, to my surprise and satisfaction. Before the distribution, few people knew what a Purple Martin was; but now an interest is developing rapidly, which also means that there will be lovers of other birds. I, myself, have a colony of nineteen pairs of Martins. A cat caught a few Martins (the cat is not mine), and such cats should be dealt with summarily, as they no doubt take first place as destroyers of birds. However, a remedy is difficult to find. The English Sparrow is also the arch enemy of the Purple Martin, and other birds that nest in boxes or hollow trees.—Ferdinand Schreiman, *Concordia, Mo.*

Notes on Swainson's Hawk

On the evening of April 8, 1909, a flock of about seventy-five Swainson's Hawks appeared here, and scattered to several eucalyptus groves to roost. Some soared high above the groves, while others flew directly into the trees; but by dark they were all in the trees.

The next morning some of them flew to the fields and hunted, while others remained in the groves. During the day, they flew away to the southeast, and did not appear here again. They were in several different phases of plumage. They were very tame, and allowed me to pass under the trees they were in without flying. I never saw Hawks in large flocks here before, and would like to learn if this is a common thing among Swainson's Hawks.—John McB. Robertson, *Buena Park, Orange Co., Cal.*

Late Stay of the Evening Grosbeaks

The following will possibly be of some interest to your readers. During the winter of 1909–10, a colony of twenty or more Evening Grosbeaks took up their residence in the neighborhood of the King Philip mine, of this place. Their principal food consisted, apparently, of the scraps they could pick up from the rock pile at the mine. After a car of rock was dumped on the pile, the birds would fly down and pick the pile over before the car was back to the shafthouse. Waste from the miners' dinner-pails was probably choice living

for them. They would leave the neighborhood of the rock pile, apparently for the shelter of heavy timber, in advance of an approaching heavy snowstorm, which action was remarked by the men as a weather indicator.

These birds seem inclined to remain during the summer. In early spring they seemed to live largely on the buds of the trees.—R. R. Seeber, *Winona, Mich.*

[In response to an inquiry as to how long the birds remained, Mr. Seeber replied under date of June 15, 1910: "The Grosbeaks have not been prominent around the mine location for about four weeks, and I believe are nesting in the heavier timber, but I have located no nests. I saw one Grosbeak in the air about three nights ago."]

The Least Flycatcher

The Least Flycatcher is one of the commonest birds of northern Alberta. They arrive about April 10–15 in the vicinity of Edmonton, and in a few days their *chebec* is heard on all sides. Most of the nests are located in a crotch of a poplar sapling at all distances from the ground. I was on the lookout for a suitable nest to photograph, and on July 12, 1908, found one at the edge of a wood in a poplar sapling eight feet from the ground.

The camera was set with no pretense of a blind, and it did not take long to get pictures of the adult bird brooding young.

LEAST FLYCATCHER SHADING YOUNG
Photographed by J. M. Schreck

I visited the nest several times, and on two occasions caught both birds at the nest, but the usual custom was for one to leave as the other approached the nest.

The male bird was very tame,—in fact he would brood young until I touched his back,—and the last picture taken at the nest was made while I stood back of the camera and focused on the bird himself.

When the young were fully feathered,

I took them from the nest and set them on a limb some ten to twelve feet from the nest, and the parent birds came and fed them regularly. After I had taken several pictures, I returned the birds to the nest.—J. M. Schreck, *Naramata, B. C.*

The Cat Question

Replying to Mr. Edgar Boyer of Sparks, Nevada, on 'Our Duty to Our Bird Tenants,' and to Mrs. Mabel Osgood Wright, 'Cats and Crows,' in Bird-Lore for May–June, there seem but two methods, educational and legal, by which the cat question can ever be humanely settled, with just regard for the rights of people, birds and cats.

First, by education. Educate all, especially the coming generation, to appreciate the fact that it is an offence against society, human, cat and bird, to allow cats to run wild and reproduce unchecked. If a female be kept, a doubtful luxury for any cat- and bird-lover,—but one kitten, a male, should be retained out of each family born. All the rest should be at once put to sleep. Let humane societies and humane people prosecute, put to shame, frown upon and ostracize all cat-deserters. Large numbers of cats are deserted, especially at vacation time. They must hunt or starve. Mr. Boyer says, "their every movement is emblematic of distrust and thievishness." They have good cause to distrust man, and all would steal, if starving. No animal is so often neglected as the cat. The popular idea is that cats can shift for themselves; hence these cruelties to cats, birds and the compassionate.

A LEAST FLYCATCHER FAMILY
Photographed by J. M. Schreck

The second method, which should supplement the first, is a legal one. Tax all cats, as all dogs are taxed, and the evil will be struck at the root. Then, and then only, shall we know who owns the cat. The race will improve, and starving mongrels disappear, to the betterment of all, themselves included. Those appreciating a fine cat, properly restricted, and wishing

to keep it, will be willing to pay the cat tax; if not, the law should compel them so to do. The progeny of the dog is restricted, why not that of the cat? In certain oriental lands where this is not the case, pariah dogs are a nuisance; so are pariah cats, and so would be any other animal not rationally controlled by man. But the fact that cats destroy birds makes their question a burning one, and a worthy field of labor for all Audubon workers, along both lines, educational and legal, "with malice toward none, with charity toward all."—Emily G. Hunt, M.D., *Pasadena, Cal.*

The Destructiveness of Cats

In 1888, we built a new home and made a secluded garden especially for the birds, planting trees, shrubs, vines and plants in profusion. The high back fences, topped with wire netting two and one-half feet wide, to keep out cats, are covered with Virginia creeper. Certain corners and borders are allowed to grow wild. We have, each spring, a great variety of migrants. They come and find food, water and shelter in the garden,—they find a haven of rest. But at night the neighboring cats, also loving seclusion, make the garden their rendezvous. Certainly some birds have raised their broods, while many choice ones have tried to nest, but have been driven away, or killed, by English Sparrows and cats. While the garden has been a source of pleasure in many ways, it has also proved a perpetual disappointment because of English Sparrows and cats. It is distressing to find, every year, under vines and bushes, bunches of feathers and, too, little feet of one's favorite birds—often choice and uncommon ones.

Here is a *partial* list, *only*, of casualties taken from an old diary, and is reliable:

1898—June 5.—A Song Sparrow began to build in a honeysuckle vine on the south side of the house.

July 5.—Five fine young Song Sparrows left the nest this morning, at eight o'clock—safely.

July 6.—At four o'clock this morning a neighbor's cat caught one of the birds in the (my) garden. It was pitiful to hear the cries of the little parents and to see the young try to escape.

July 7.—Of the five, only two of the young Song Sparrows are left. The results of time and patient labor of these sweet, useful, little birds for a month, destroyed in a few hours by cats!

1901.—July 30.—A Wren's nest with a full complement of eggs destroyed by a cat.

August 14.—A young Robin just barely escaped a springing cat. I saved it.

1902.—In late April, a Song Sparrow built a nest in some brush placed in a high crotch of an elm. She brooded five eggs for almost two weeks. A cat climbed up one night, and destroyed the nest and ate the eggs. The same week, a Wilson's Thrush, or Veery, was taken by a cat in one of my trees.

July 11.—An orphaned Robin raised by me, when liberated today, was caught by a cat and one wing broken—permanently disabled.

July 30.—A cat caught a Wren on the front porch and ate him.

During May and June, many choice birds were victims to cats.

1905.—April 13.—A beautiful male Oven bird, in song, eaten by a cat at night. It roosted in a low, dense syringa bush. Bluebirds building.

April 25.—Bluebird brooding eggs.

May 20.—Female Bluebird accidentally shot in my garden by neighbor's boy, who mistook her for an English Sparrow. He shot from his own garden into mine without my knowledge. Male bird faithful in feeding and caring for the young birds. I helped him by throwing out meat and meal worms, which he fed to the babies.

May 25.—Five young Bluebirds left their nest-box, safely today.

June 5.—At five o'clock this morning the father Bluebird's cries took me into the garden to find a cat with two of the young in her claws—a male and a female—one dead, the other dying. The birds were at their feeding-place, when caught.

1906. May 9.—An Ovenbird eaten by a cat. Also a Brown Thrasher.

May 13.—A Thrush killed by cat.

May 20.—A black cat caught a young Robin.

Many Juncos are sacrificed every year. —Mrs. Oscar Oldberg, *Chicago, Ill.*

Tufted Titmouse in Northern New Jersey

In the May-June issue of Bird-Lore, a note appears recording the Tufted Titmouse from Pine Brook, N. J. It may be of interest to Bird-Lore's readers to know that the bird is tolerably common in this neighborhood in winter, and occasionally in summer. I have it recorded in January, February, March, April and May, 1908; May and August, 1909; March and April 1910.—Isabel McC. Lemmon, *Englewood, N. J.*

A Late Pine Siskin

June 17, 1910, I saw, and positively identified, a Pine Siskin, in a row of apple trees near our house. This species was entirely absent here last winter, as were also the Redpolls and Crossbills. This is the first time that I have known the Siskin to be here in summer.—L. Henry Potter, *Clarendon, Vt.*

A Hummingbird Guest

While visiting a friend who had spent the summer in Colorado, the enclosed picture was shown me, and these brief facts told. "We arrived at the 'Broadmoor' late in July, and the very first morning were taken out to see the nest of a Hummingbird built over an electric light in the north gallery of the hotel. The guests in the hotel had been very solicitous about the little mother's welfare, as soon as it was discovered that she was really determined to build her nest in so unusual a place. When she began to remain on the nest at night, they begged that the light should be turned off early, so the heat might not destroy the eggs. All the people about the house entered into the plans made for protecting her, and in due time two Hummers were hatched and safely reared by the brave little parents.

"The clerk of the hotel was kept busy exhibiting his interesting tenants, and,

NEST OF HUMMER ON THE PIAZZA OF A COLORADO SPRINGS HOTEL

to do so without disturbing them, a mirror was put into requisition. Held at the proper angle we could see the cunning nest and two poor little featherless creatures whose only sign of life, at first, was the opening of mouths that seemed to bear no relation whatever to the size of the bodies they belonged to. Days passed, feathers came out, and at last, one morning, when our visit was made, nothing remained but the birth-place of the smallest atoms I ever saw that could be called birds."—Mrs. M. L. Stephenson, *Helena, Ark.*

"DO BIRDS WATER THEIR YOUNG?"
Photographed by Mrs. S. Louise Patteson, Fairmount, Ohio

In asking whether birds water their young, Mrs. S. Louise Patteson writes: "In feeding their young (see lower picture), Goldfinches go very close to them. But in the upper picture we have the parent alighting at a place where such close approach was impossible, and supplying them from that distance with what resembles a liquid. May it not be, therefore, that the photograph marks the discovery of the fact that birds do water, as well as feed, their young?"

To the editor, however, it seems more probable that the line of attachment between the bills of the adult and young is a glutinous saliva adhering to the birds' bills after the withdrawal of the bill of the adult from the mouth of its offspring.—EDITOR.

Book News and Reviews

Concealing-coloration in the Animal Kingdom. An Exposition of the Laws of Disguise through Color and Pattern: Being a Summary of Abbott H. Thayer's Discoveries. By Gerald H. Thayer. With an Introductory Essay by A. H. Thayer. Illustrated by Abbott H. Thayer, Gerald H. Thayer, Richard S. Meryman, and others, and with photographs. New York. The Macmillan Company. 1909. Price, $7. 4to xx+260 pages; 16 colored pages, 140 uncolored figures.

The fundamental importance of Abbott H. Thayer's law of obliterative or counter-shading, in animals, first made known by him in 'The Auk' for 1896 (pp. 124–129; 318–320), is recognized by all students of the colors of animals. While it had been applied in two instances by Poulton, twenty years before, that eminent naturalist writes, "The far-reaching significance of the principle was unseen until A. H. Thayer's great discovery in 1896." "For ages," the same writer remarks, "the artist has known how to produce the appearance of solid objects standing out on his canvas, by painting in the likeness of shadows. It has remained for this great artist-naturalist to realize the logical antithesis, and show how solid objects may be made to fade away and become ghost-like, or even invisible by painting out the shadows." (Essays on Evolution, Oxford, 1908, p. 299.)

In the handsome volume under consideration, Mr. Thayer's son, Gerald H. Thayer, presents his father's further elucidation of the law of counter-shading, and the results of his additional studies of concealing coloration.

Mr. Thayer contends that the main, if not sole function of color is for purposes of concealment, in order that an animal may either elude its enemies or capture its prey. In 'warning,' 'recognition,' 'signaling,' or 'banner' colors, he has no belief. "This discovery," he writes (introduction, by A. H. Thayer, p. 4), "that patterns and utmost contrasts of color (not to speak of *appendages*) on animals make *wholly* for their obliteration, is a fatal blow to the various theories that these patterns exist mainly as nuptial dress, warning colors, mimicry devices (*i. e.*, mimicry of one species by another), etc., since these are all attempts to explain an entirely false conception that such patterns make their wearer *conspicuous*. So immeasureably great, in the case of most animals, must be the value of inconspicuousness, that such devices as achieve this to the utmost imaginable degree, upon almost every living creature, demand no further reason for being (although doubtless serving countless other minor purposes)."

Among birds, it is said, inconspicuousness or concealment is achieved; with but few exceptions, primarily by counter-shading, usually aided by markings, patterns or appendages which tend to further obliteration.

The law of counter-shading, which explains how an animal is rendered inconspicuous by being darkest above, where it receives the most light, and palest below where it is least lighted, is accepted as a demonstrated principle, and it now too well known to call for comment here.

In the newly proposed law of obliterative coloration, the invisibility of the counter-shaded bird is increased by the addition of a picture pattern, by which the bird is made to resemble the background against which it is most commonly seen by its enemies or by its prey. Or, to quote the author, "The object's obliteratively-shaded surface must bear a *picture of such background as would be seen through it if it were transparent*" (p. 31).

Thus, the American Woodcock bears on its plumage a picture-pattern of "dead leaves, twigs and grasses, variously disposed over shadow-holes, in a near view," while the markings on Wilson's Snipe represent "sticks, grasses, etc., with their shadows, at various distances." The

plumage of the Upland Plover shows a "grass" pattern, a type common to many field- or upland-inhabiting species. Certain of the Plover and Sandpipers wear this plumage during the summer when they live among weeds and grasses, but lose it for one of pure and simple counter-shading when they winter along the shores and beaches.

From these simpler and more obvious instances of obliterative picture patterns, we are led to explanations of the brilliantly colored and intricately marked plumages of birds like the male Wood Duck, Peacock and Paradise bird (*Paradisea*), or of such special markings and appendages as the speculum in Ducks, gorget of Hummingbirds, tail-coverts in the Resplendent Trogon, etc., all of which, under certain vital conditions, are considered to make or to aid in making their wearers inconspicuous.

The prevalent white color of the birds of the open sea is believed to give "concealment against the sky above, from the eyes of aquatic animals below them." But their young are both obliteratively shaded and marked.

"Ruptive" or "Secant" markings are designed to prevent the appearance of solidity following too great uniformity of color, and they "break up" the bird by cutting it into pieces none of which will reveal the whole. Oyster-catchers and Murres are examples of ruptively marked birds, while the lines on a Wilson's Snipe's scapulars or stripes at the side of a Teal's breast are secant markings.

Such, in briefest outline, are the principles through the application of which Thayer seeks to explain the uses of color in animals. Of their importance there can be no question, and, whether or not one follows Thayer in believing them to be so universally applicable as to supplant all previously advanced theories in relation to animal coloration, one must be sufficiently impresssed by the character of Thayer's actually demonstrated discoveries to avoid judging him hastily when one cannot at once accept his conclusions as satisfactory. Moreover, the critic should constantly bear in mind Thayer's insistence on the importance of looking at an animal from the proper viewpoint, whether it be that of foe or food; and for his warning there is abundant need. We are so prone to regard things from the level of our own eyes that we do not realize the absolute necessity of taking the position of Hawk, grasshopper, frog or fish as circumstances require.

Few men have devoted as much time to this subject as Thayer; possibly no man is better fitted to grapple with it. Without hesitation, we admit the truth of his contention that the painter's peculiar and specially developed gifts are required to appreciate at the full many facts in relation to animal coloration to which the average naturalist may be blind; but we, in turn, maintain that the problem should be presented by the naturalist. Through the exercise of his equally peculiar gifts, the animal must be studied in nature, its haunts examined, its foes and food ascertained, its need for concealing coloration learned, and all the significant details of its habits and actions under certain conditions recorded, before he ventures to ask for an explanation of the use of this color or that marking.

Fortunately, both Thayer and his son are naturalists, and are thus doubly equipped for the task they have undertaken. Still, we cannot but feel that their work as a whole would have carried far greater weight had it been based exclusively on their own field experience. After weeks of close association with the American Flamingo, for example, we do not believe they would have attempted to explain its colors by the wholly imaginary plates and hypotheses which they have presented; and we fear that it is such cases as these which will undeservedly weaken the value of the Thayer's work with those who have known intimately in nature species which they have never met, but the significance of whose colors they seek to explain.

Every real student of animal coloration will, however, recognize the great value

of this eminently original and profound contribution to our knowledge of the subject; and, whether or not Thayer's theories replace all those which have been long current, his discoveries have already revolutionized our views of what constitutes concealing coloration in the animal kingdom.—F. M. C.

Our Search for a Wilderness; an Account of Two Ornithological Expeditions to Venezuela and to British Guiana. By Mary Blair Beebe and C. William Beebe. Henry Holt & Co. New York. 1910. 8vo., xix +408 pages, 157 half-tones, 3 line cuts.

Mr. and Mrs. Beebe are to be congratulated on their success in sharing their delight in the life of a tropical wilderness with their readers; and, where one's enthusiasm is kept constantly at the boiling point, it is no small satisfaction to feel that you have conveyed some of your pleasure to an appreciative audience.

But the authors of this volume have done more than this, for their studies of tropical life have added not a little to our knowledge of the habits of many of the animals, chiefly birds, which they encountered. The more technical results of their two trips have appeared in the publications of the New York Zoölogical Society, where also their collections were deposited, and we have here the narrative of their adventures, told in a manner to fire the ardor of the young naturalist, keen to experience the marvels of the tropics, as well as to arouse the interest of those who, less venturesome, would gain their knowledge of tropical life at second hand.

The book abounds in half-tones from photographs, which illustrate the country traversed and many of its inhabitants.—F. M. C.

A Labrador Spring. By Charles W. Townsend, M.D. Dana, Estes & Co. 12mo. xi + 262 pages, 55 half-tones.

This is the pleasantly written account of a five-weeks' trip to southern Labrador, in May and June, 1909. Although the study of bird life was Dr. Townsend's chief object, the human life of the region came in for no small part of his attention. Of especial interest are his observations on the development of a Labrador spring, and the chapter on "The Courtships of Some Labrador Birds." He remarks on the conspicuousness of the male Eider, from whatever viewpoint it be seen, and the fact that this bird assumes the plumage, in part, of the female during the flightless period of its molt, might be interpreted as an admission on the part of nature that the full male attire *is* conspicuous.

In commenting on modern methods of bird study, Dr. Townsend writes: "Nowadays, there is no excuse for the beginner to use a gun, and there is no need of multiplying collections of bird-skins, but it should be impressed on all bird-students —and their name is legion, both masculine and feminine—that it is far better to be silent or confess ignorance than to affirm knowledge, unless that knowledge is based on sound observation."—F. M. C.

Catalogue of Canadian Birds. By John Macoun, Naturalist to the Geological Survey, Canada, and James M. Macoun, Assistant Naturalist to the Geological Survey, Canada, Ottawa: Government Printing Bureau. 1909. 8vo., pages viii+761+xviii.

Treating of a part of North America in which many birds find the northern limit of their range, the first edition of this 'Catalogue' proved in practice to be a faunal work of exceptional value. We can, therefore, welcome in no uncertain way this revised edition of it, which we are glad to find appears in one volume instead of three.

In this revised and enlarged edition, that veteran Canadian naturalist, John Macoun, has associated with him as joint author, his son, and not a small portion of the original data here presented is based on the combined field work of these two naturalists. Here too, are included the notes of William Spreadborough, who, as a field agent and collector, has been in the employ of the Survey since 1889. In addition, therefore, to eight abstracts of

the published records of other ornithologists, this volume contains much original matter, which adds greatly to its value as a work of reference, and we heartily congratulate its authors on the successful conclusion of a task which has made all working ornithologists their debtors.—F. M. C.

Check List of North American Birds. Prepared by a Committee of the American Ornithologists' Union. Third (Revised) Edition. New York. American Ornithologists' Union. 1910. 8vo. 430 pages, 2 maps.

The fifteen supplements to the A. O. U. Check-List which have been issued since the publication of the second edition, in 1895, have introduced so many changes in the nomenclature of North American birds that bird students everywhere will welcome the appearance of a volume which brings the subject, so far as names are concerned, up-to-date. In classification, however, there has been no change from that employed in the two preceding editions, the Committee deciding that since no satisfactory classification has as yet been proposed, it is unquestionably better to continue to use one already familiar than to adopt one admittedly tentative, and so long as the classification of birds remains an expression of individual opinion as to the value and significance of the factors involved, it is to be hoped that the Committee will continue to view the matter "from the standpoint of convenience."

The changes in the nomenclature we have not ventured to enumerate, but we observe that scarcely a page of our annotated copy of the second edition of the Check-List is without one or more emendations. These, however, are the unavoidable result of the consistent application of standard laws of nomenclature, and their very numbers are an indication of our progress toward reasonable stability.

The few changes which have been made in the English names of our birds are in deference to popular usage, which has not adopted various common names proposed in the first edition of the Check-List, or for other desirable reasons. The whole list of new names will be found in Bird-Lore for October, 1909. The number of species included is 790 plus 385 subspecies, a total of 1,175 as compared with the 797 species, 300 subspecies, and total of 1,097 forms in the second edition. The loss in species is due, in the main, to the exclusion of Giraud's alleged Texas records of Mexican birds, while larger collections and finer discriminations account for the gain in subspecies.

The modern, logical method for the use of trinomials is adopted, and when a species is divisible into two or more forms, the binonial name is applied to the group as a whole, and trinomials are used for all the included forms.

It is, however, in the paragraphs devoted to 'Range' that the new Check-List shows the most marked improvement over the preceding editions; and for the vast fund of information they contain, we have to thank the Biological Survey, which in possessing an incomparable series of data on the distribution of North American birds, is in a position to make this portion of the work adequately present existing knowledge. While our thanks are due each member of the Committee for his part in preparing this indispensable volume, we speak advisedly when we say that every user of it is under an especial obligation to its Editor, Dr. J. A. Allen, who in revising manuscripts and in seeing this volume through the press has for the better part of two years devoted no small portion of his time to what in truth has been a labor of love.—F. M. C.

Private Game Preserves and Their Future in the United States. By T. S. Palmer. Bureau of Biological Survey. Circular No. 72, May, 1910. 10 pages, 6 half-tones.

While game preserves are established in order that game may be killed upon them, they become, at the same time, refuges for many species of birds which, being fortunate enough not to be killed

as game, share all the benefits and none of the penalties of occupying game preserves.

But even the game birds themselves benefit by the acts designed for their protection as well as their destruction. We recall a certain ducking club in the South whose members annually kill some 2,500 Ducks, chiefly Mallards. The number seems large, but the present head-keeper of the club informed the writer that prior to the formation of the preserve, he alone as a market gunner, shot as many birds each season as all the members and their guests now kill; and he was one among many market gunners, who shot over the what is now preserved ground.

Dr. Palmer's paper is, therefore, a timely contribution to a subject of interest not alone to sportsmen, but to bird-lovers as well.—F. M. C.

Plants Useful to Attract Birds and Protect Fruit. By W. L. McAtee, Assistant, Biological Survey. Yearbook of Department of Agriculture for 1909, pp. 185-196.

Mr. McAtee's pamphlet gives exactly the information for which bird-lovers frequently ask. He tells us not only what plants and trees bear fruit which will attract birds, but also what species of plants will thrive best in certain regions.

The subject has a wide practical bearing, for not only may we protect valuable fruits by supplying birds with other kinds of food, but an increased food-supply may, in many cases, mean an increase in the number of birds.—F. M. C.

Progress of Game Protection in 1909. By T. S. Palmer, Henry Oldys and C. E. Brewster, Bureau of Biological Survey. Circular No. 73, May 21, 1910. 19 pages.

This excellent annual summary of information relating to the relative abundance of game, parks, refuges and reservations, importation of foreign birds, administration and enforcement of game laws legislation, during the past year shows, on the whole, a most encouraging condition of affairs.—F. M. C.

The Ornithological Magazines

The Condor.—Of the five general articles in the May 'Condor,' A. P. Smith's Miscellaneous Bird Notes from the Lower Rio Grande,' which occupies nearly half of the number, is the longest and most important. Striking changes in the avifauna of this region have occurred in the last 30 years since the publication of the observations of Merrill and Sennett, among which are the practical disappearance, near Brownsville, of the Chachalaca, Wild Turkey, and Fulvous Tree Duck, and the appearance of the Chestnut-bellied Scaled Quail and several of the smaller birds. Pigeons and Doves are represented by six species and Orioles by five.

Two illustrated papers deal with the nesting habits of species from widely separated regions, viz: 'Notes on the Northwestern Crossbill,' near Spokane, Washington, by J. W. Preston; and 'The Olive Warbler (*Dendroica olivacea*) in Southern Arizona,' by F. C. Willard. The other two papers are practically local lists. Ray's account of a trip 'From Tahoe to Washoe,' in June, 1909, calls attention to the abundance at Washoe Lake, Nev., of the Killdeer and other birds usually found near marshes. Swarth's 'Miscellaneous Records from Southern California and Arizona' are based on specimens in the collections of F. O. Johnson and W. B. Judson of Los Angeles, recently acquired by the California Museum of Vertebrate Zoölogy. Among the 'eastern' birds recorded are a Blue-winged Teal, obtained in the Los Angeles market, in January, 1895, and a White-crowned sparrow (*Zonotrichia leucophrys*), collected at Palm Springs, Calif., April 26, 1889. Among the brief notes is a record, by F. C. Willard, of a Texas Kingfisher 'Seen on a Day's Outing in Southern Arizona' on the San Pedro river, near Fairbanks, February 13, 1910. Although this species was reported by Dr. Coues from the Colorado river in 1865, it does not seem to have been observed in Arizona since that time.—T.S.P.

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Bird-Lore's Motto:
A Bird in the Rush is Worth Two in the Hand

THE 'Supplements' to the A. O. U. 'Check-List' of North American birds were published with the admirable purpose of keeping the List up to date, but they have resulted in largely destroying its value as a work of reference. While those actively engaged in ornithological research posted the various changes and additions announced in the fifteen Supplements which have been issued since the publication of the second edition in 1895, into their Check-Lists, this was not to be expected of the public at large, which, consequently, for many years has had no one book containing an authoritative Check-List of the scientific and popular names of North American birds.

It is to be hoped therefore, that the A. O. U. will permit the third edition of its Check-List, which has just been issued, to remain a standard, usable, dictionary, so to speak, of the names and ranges of North American birds, until circumstances warrant the publication of a fourth edition, or at least of a revised and complete list of names.

THE resignation of Dr. C. Hart Merriam as Chief of the Biological Survey of the United States Department of Agriculture, in order that, free from executive cares he may devote his entire attention to scientific work under a fund established by Mrs. E. H. Harriman, closes a chapter in the history of one of the most important epochs in the study of our birds and mammals.

Dr. Merriam not only formed the Bureau of Biological Survey (in 1885, as the Division of Ornithology and Mammalogy) and originated field and laboratory methods which have made it the most efficient investigating force of its kind in the world, but he unconsciously formed, at the same time, a school in which many of the leading naturalists of the day have received an invaluable training.

The appointment of Dr. Merriam's former Chief Assistant, Mr. Henry W. Henshaw as his successor, is an assurance that the Survey will continue to render an increasingly effective service to the public, and without reservation, therefore, we may congratulate ourselves that Dr. Merriam is now in a position to give to the the world the fruits of his prolonged studies of the American fauna.

As the lines of bird protection are drawn closer, the 'Cat Question' becomes correspondingly acute. We commend, therefore, both to the friends and enemies of Tabby, Dr. Hunt's article on the subject in this issue of BIRD-LORE. The methods of relief she suggests have been proposed before, but she puts the case very clearly and in a way which should appeal to the good judgment of those on both sides of it.

Aside from Dr. Hunt's and other articles on the destructiveness of cats, this issue of BIRD-LORE contains several brief but suggestive papers on ways and means of increasing our bird population.

Mr. Schreiman's report on the results following a distribution of the National Association's leaflet on the Purple Martin shows what can be done by a little well-directed work of this kind; Professor Benedict's description of the Mary M. Emery Bird Reserve and of the plans for its development, suggests untold possibilities in this direction, and in Mr. McAtee's pamphlet on plants which will attract birds, which is briefly reviewed on a preceding page, there is much practical information for those who would increase the numbers of birds either in reserves or about their own homes.

The Audubon Societies

SCHOOL DEPARTMENT

Edited by MABEL OSGOOD WRIGHT

Address all communications to the Editor of the School Department, National Association of Audubon Societies, 141 Broadway, New York City

BIRD-CITIES-OF-REFUGE

THE Mary M. Emery Bird Reserve, as described beyond by Professor Benedict, opens a wide field of work not alone for those living in cities and the smaller towns, but even for the dwellers in remote country districts.

Especially does it suggest work for the pupils of the country school, and the opportunity for the setting apart tracts of land by those who have it to spare, and desire to perpetuate the name of an individual or a family in connection with such work.

A library is a good thing for any community, but quite as necessary, if not more so, is the spreading open to the young a permanent page of nature's book, wherein they may read for themselves.

Now is the time to act. Every day the cities and manufacturing towns are growing more solidly packed with human beings; the outlying brush lots and woodland being stripped for fuel, and the many other uses of wood while the land itself is taking on a prohibitory value. Now is the time to secure these oases in what may be called the desert of civilization. In many places it is now or never.

There is only one point on which I should differ with Professor Benedict,—that of necessary size. He mentions a bit of ground twenty feet square, fenced with poultry-wire, as being large enough for a successful reserve. To my mind, this is too small. A half acre is little enough to give the inmates that sense of freedom and the possibility of at least the partial self-support that separate the wild bird from the inhabitant of the large aviaries of zoölogical parks.

Also, birds of different species do not care to be too closely associated in nest-building, and need elbow-room, so to speak. Anything less than a half-acre becomes a bird-cage, and, to be of any real value, the city of refuge should be upward of an acre.

One favored season, a number of years ago, before a fire caused by a railway locomotive, had destroyed much dense underbrush, I listed forty species of birds as nesting in my home bird city of eight acres. Since then, causes wholly outside of the preserve itself have reduced the number of species nesting by one half, although the number of individual birds remains about the same. Of this I am convinced, that, in spite of varied methods of feeding and protection from cats and vermin, many desirable species of birds must have

absolutely natural surroundings and the ability to forage for themselves, if they are to be retained. A fence of poultry-wire six feet high, set close to the ground and topped with barbed wire, will do finely as a barrier, if, in addition, there is *some one watching out with gun or warrant for intruders!*

Who is there in your town that will deed an acre or more of wild land either to the local Audubon Society or the State Board of Agriculture for such a purpose? Or, if they will not give the land outright, pledge it to this use for a term of years?

Then let the bird-city-of-refuge be named after either a public or a private individual associated with the outdoor life of our country, or the special district, that the bond of personality may add its influence; for one of the things that we most lack in the present generation is the beneficial and conservative influence of association, reasonable tradition, and personal sentiment, three powerful factors in the reign of law and order, whether of the community or the home. M. O. W.

The Mary M. Emery Bird Reserve

By H. M. BENEDICT

Associate Professor of Biology, University of Cincinnati

Now that the movement for protecting song birds, where they still remain, is so well under way, the time seems ripe for a concerted effort to bring back the birds to those places from which they have been driven.

A child's memories should gleam with the beauties of flowers and sky, and thrill with the remembered songs of birds. The one who cannot look back to a childhood in which birds sang and nested has been denied a birthright. Where the children are, there should the birds be.

And yet, every step in the building of a city makes it more difficult for the birds to remain; and, finally, in the heart of the city, where the little children swarm the streets, all but the vulgar Sparrow have vanished. How can birds be brought into daily life of those little children of the pavements? How can their memories be stored with the winged beauty and joyful song of birds?

To begin the solution of this problem, Mrs. Mary M. Emery, of Cincinnati, has purchased a small wooded area, which yet remained undisturbed, in one of the residence districts of Cincinnati, built around it a boy-proof, cat-tight iron fence, and placed it under the charge of the ornithologist of the biological department of the University of Cincinnati, as an actual experiment station. The great object in view is to discover the most efficient and practical methods for restoring the birds to the cities. The motto in bronze on the entrance reads, "Bring Back the Birds to the Cities."

The first obvious essential of the city bird-reserve is to make it safe for nestlings. We little realize the dangers which confront nestling birds from

the time they hatch until they attain the wisdom of their parents. The birds themselves search long and earnestly for a safe place to build their nests, and in this fact lies the first great hope for the success of the city reserve. Provide a safe nesting-place, and birds will find it and use it. It is also well known that birds tend to return to their former haunts, and this further assures a constant increase in numbers in these city colonies.

In order to make the Mary Emery Reserve safe, a fence of special construction has been designed, a picture of which I hope soon to have available for the readers of Bird-Lore. It consists of channel-iron pickets, one and one-fourth inches wide and six feet long, bent outwards in a curve at the top, and riveted at the back to two angle-iron rails. The pickets are spaced one and one-half inches apart. In cutting the upper end of the pickets to a point, the metal splinters in such a way that it is impossible to grasp it without tearing the hand. The fence is entirely efficient in keeping out cats and boys, and, withal, is handsome and dignified. In fact, it has proved so successful in use and so attractive in appearance that the Cincinnati Iron Fence Company, who made it after the writer's design, have added it to their trade patterns and will show it in their catalogue.

The next essential, after safety, is the furnishing of proper nesting-places. Our reserve is, fortunately, already a jungle of many kinds of trees and shrubs, with wild herbs covering the ground. Thus many different kinds of nesting-places are present. A number of Wren and Bluebird houses will also be put up. In addition to the shrubs now present a number of berry-bearing plants will be set out,—barberry, honeysuckle, mountain ash, etc.,—providing additional food for our winter resident birds.

During the nesting-season, yarn, string, excelsior and other materials, will be hung out and plenty of mud provided.

Suet will be constantly provided on a central feeding-shelf, both winter and summer. All wild birds eat it greedily, while the Sparrows care but little for it. Many experiments with different kinds of food will be carried on, as here lies an important field for research in methods of attracting birds.

Bathing- and drinking-pools are provided by a natural spring, but city water will soon be installed, with an artificial basin.

Both the food and the water will be supplied on a shelf attached to the south wall of a specially designed observation-house. Classes may sit in a little amphitheatre holding twenty or thirty, and look through slanting windows at the birds as they come to feed and bathe. A constant succession of birds, both in winter and summer, visit the feeding-shelf, and classes will be able to see them very much better than on the ordinary field trip. Charts and lantern-slides of the birds which frequent the shelf will be displayed inside the observation-house. A photographic blind will enable photographs to be taken, also.

Constant supervision of the reserve will be exercised by the ornithologist.

The status of the Blue Jay and the Grackle will be determined, and, in case any one variety of birds seems to be becoming too abundant, attempts will be made in two ways to keep the balance true. It is in this direction that some of the most important and interesting questions will arise.

This reserve, fully equipped, will require a total outlay of a little more than $2,000 in addition to the use of the land.

The statement, originating with the 'New York World,' that a vast sum was to be expended is greatly to be regretted, as it will delay the establishment of other reserves. The expense of maintenance is little or nothing, as the work of the supervision is a labor of love.

A piece of ground twenty feet square, with a poultry-netting fence may be made a successful reserve. In every city and village there are areas which, at small expense, could be fenced and placed in charge of some local bird-lover, teacher of biology in the high school, member of the Audubon Society, etc., who would be glad to manage it for the sake of the birds.

The time is ripe for this movement. Let wealthy bird-lovers buy suitable areas and fence them, and lease them at a nominal rent to organizations or individuals who will agree to care for them properly. Let us labor together to "bring back the birds to the cities"

YOUNG BLACK-HEADED GROSBEAKS
Photographed by H. T. Bohlman

BLACK-HEADED GROSBEAK

Order—Passeres
Family—Fringillidæ
Genus—Zamelodia
Species—Melanocephala

THE BLACK-HEADED GROSBEAK

By WILLIAM L. FINLEY

The National Association of Audubon Societies

EDUCATIONAL LEAFLET NO. 45

The Black-headed Grosbeak is one of the birds of my childhood. As long ago as I can remember, I saw him in the mulberry and the elder trees about my home when the fruit was ripe. I did not know his name, but I knew him by his thick bill, his bright colors and his high-keyed call-note. One has little trouble in getting acquainted with a bird of such marked individuality. The black head, the red-brown on the breast brightening to lemon-yellow below and under the wings, the black tail and wings with two white wing-bars, are distinctive of the male. The female is more demurely dressed in dark brown and buff. But the garments are not the only distinctive features of the Black-headed Grosbeak.

Habits

For several summers, I watched a pair of Grosbeaks that lived in a clump of vine-maples on the hillside. The same pair, no doubt, returned to the thicket for several years. It seemed that I could almost recognize the notes of their song. If our ears were tuned to the music of the birds, could we not recognize birds by their songs, as we do our friends by their voices?

One day I stopped to look for a bird that was caroling in one of the maples. I saw the Grosbeak mother singing her lullaby as she sat on her eggs. It looked to me so like a human mother's love. Few birds sing in the home. However much they wish to, they are afraid. As John Burroughs says, it is a very rare occurrence for a bird to sing while on its nest. But several times I have heard the Black-headed Grosbeak do it. How the Grosbeak took up such a custom, I do not know, for birds in general are very shy about attracting attention to the nest.

Range

In the Grosbeak family, the Cardinal or Redbird is perhaps more familiar, since he is often seen behind the bars of a cage. The Rose-breasted Grosbeak is the bird of the eastern states while the Black-headed Grosbeak is of the West. He may be found anywhere from eastern Nebraska to California, and from British Columbia south to the plateau of Mexico.

Nest and Eggs

As a rule, he builds a loosely constructed nest of twigs, lined with fine roots. In the northern states, the nests are built in dogwoods, vine-maples and alders; while, in the South, the bird often nests in chaparral, willows and other trees. The eggs are three and four in number, and are pale blue thickly spotted with brown.

What He Eats

The Black-headed Grosbeak is sometimes complained of by the fruit-growers on the Pacific coast. It is a bird fond of figs, cherries and berries. But fruit is not the major part of its diet. It destroys many insects that are harmful to the fruit-grower, such as the codling moth, canker-worm, flower beetles and scale insects.

According to Bulletin No. 32 of the Bureau of Biological Survey, entitled 'Food Habits of the Grosbeaks,' by W. L. McAtee, the Black-headed Grosbeak is a bird of economic value to the fruit-grower, notwithstanding the fact that it eats some fruit. An examination of 226 stomachs of this bird, the

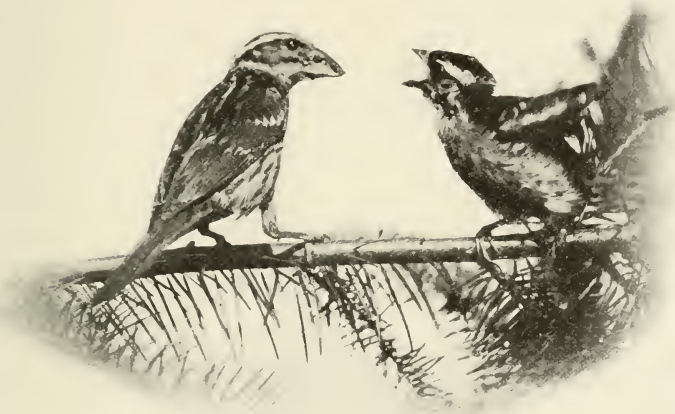
MALE BLACK-HEADED GROSBEAK FEEDING YOUNG
Photographed by H. T. Bohlman

majority of which were collected in California, shows that, during his six months' stay in his summer home, the bird consumes an average of 34.15 per cent of vegetable and 65.85 per cent of animal food. This bird shows a distinct preference for black-olive scale, one of the most abundant and destructive insects on the coast. This insect constitutes 20.32 per cent of the Grosbeak's entire food. Of the stomachs examined, this insect was found to have been eaten by 123 birds. This service alone more than pays fruit-growers for the fruit it eats. To give a clearer estimate of the value of this bird to man, scientific observations show that, for every quart of fruit eaten, the Black-headed Grosbeak eats more than three pints of black-olive scales, more than a quart of flower beetles, besides a generous supply of canker-worms and the pupæ of the codling-moth.

Song

The Black-headed Grosbeak has a rollicking song, like that of the Western Robin and Western Tanager. I have, at times, found it difficult to distinguish the song of the Grosbeak and that of the Tanager. The Black-headed Grosbeak is brilliant both

in dress and song. I loved to watch the male that lived in the clump of maples. He used to perch at the very top of a fir sapling near the nest, to stretch his wings and preen his tail, as if he knew his clothes were made for show. Early in the morning he showed the quality of his singing; later in the day it often lacked finish. The tones sounded hard to get out, as if he were practising,—just running over the notes of an air that hung dim in his memory. But it was pleasing to hear his practice. The atmosphere was too lazy for perfect execution.



FEMALE BLACK-HEADED GROSBEAK AND YOUNG
Photographed by H. T. Bohlman

Getting Acquainted

We had a good chance to study and photograph a pair of Black-headed Grosbeaks that nested near my home. We were soon on such intimate terms with both birds that we could watch them at close range. Nature has given the Grosbeak a large and powerful bill, to crack seeds and hard kernels. It seemed to me this would be an inconvenience when it came to feeding children. If it was, the parents did not show it. The mother would cock her head to one side, so that her baby could easily grasp the morsel, and it was all so quickly done that only the camera's eye could catch the way she did it. She slipped her bill clear into the youngster's mouth, and he took the bite as hurriedly as if he were afraid the mother would change her mind and give it to the next baby.

The parents fed their nestlings a diet of both fruit and insects. Once I saw the father distribute a whole mouthful of green measuring-worms. The

next time he had visited a garden down the hillside, for he brought one raspberry in his bill and coughed up three more.

The three young Grosbeaks left the nest the morning of July 6. They were not able to fly more than a few feet, but they knew how to perch and call for food. I never heard a more enticing dinner song. The minute a youngster's appetite was satisfied, he always took a nap. There was no worry on his mind as to where the next bite was coming from. He just contracted into a fluffy ball, and he didn't pause a second on the borderland. It was so simple. His lids closed, and it was done. He slept soundly, too, for when I stroked the feathers of one, he didn't wake, but, at the sound of the parents' wings, he awoke as suddenly as he dropped asleep.

Home-Life

I have watched a good many bird families, but I never saw the work divided as it seemed to be in the Grosbeak household. The first day I stayed about the nest, I noticed that the father was feeding the children almost entirely, and whenever he brought a mouthful, he hardly knew which one to feed first. The mother fed about once an hour, while he fed every ten or fifteen minutes. This seemed rather contrary to my understanding of bird ways. Generally the male is wilder than his wife, and she has to take the responsibility of the home. The next day I watched at the nest, conditions were the same, but I was surprised to see that parental duties were just reversed. The mother was going and coming continually with food, while the father sat about in the tree-tops, sang and preened his feathers leisurely, only taking the trouble to hunt up one mouthful for his bairns to every sixth or seventh the mother brought. To my surprise, the third day I found the father was the busy bird again. Out of eighteen plates exposed that day on the Grosbeak family, I got only five snaps at the mother, and three of these were poor ones. The fourth day I watched, the mother seemed to have charge of the feeding again, but she spent most of her time trying to coax the bantlings to follow her off into the bushes. It was hardly the father's day for getting the meals, but, on the whole, he fed almost as much as the mother, otherwise the youngsters would not have received their daily allowance. I have watched at some nests where the young were cared for almost entirely by the mother, and I have seen others where those duties were taken up largely by the father. Many times I have seen both parents work side by side in rearing a family, but the Grosbeaks seemed to have a way of dividing duties equally and alternating with days of rest and labor.

The Audubon Societies

EXECUTIVE DEPARTMENT

Edited by WILLIAM DUTCHER

Address all correspondence, and send all remittances for dues and contributions to the National Association of Audubon Societies, 141 Broadway, New York City

The Gift of Mrs. Russell Sage

Mrs. Russell Sage has given to the National Association of Audubon Societies $500 to start a special fund to be used for the protection of the Robin. A few days later she also contributed $5,000 to be used in pushing the work of the Association in the Southern states, and at the same time expressed her deep concern that the Robin, which is legally regarded as a game bird in some of the states, should be given adequate protection. As Mrs. Sage further states that she will provide $5,000 annually for the next two years, it means that the Association will be enabled to institute and conduct a vigorous campaign for bird-protection over a large territory, heretofore but scantily reached.

By these magnificent contributions to the work of saving the wild birds of America, Mrs. Sage has won the gratitude of untold thousands of bird and nature lovers throughout the country.—T.G.P.

Fifth International Ornithological Congress

The President of the National Association had the distinguished honor of being the only American delegate at the Fifth International Ornithological Congress, which assembled May 30, in Berlin. He took with him credentials from the Department of State, the Smithsonian Institution, the National Museum, the American Ornithologists' Union and the National Association of Audubon Societies:

Over two hundred delegates were in attendance at the Congress, representing fourteen world powers.

After organizing the Congress, it was divided into five sections, as folows:

Section 1. Anatomy, Palæontology, Systematic and Geographical Work.

Section 2. Migration.

Section 3. Biology and Oölogy.

Section 4. Bird Protection.

Section 5. Bird Information and Propagation.

The entire time and attention of your delegate was devoted to Section 4—Bird Protection—as he considered this the department having the greatest economic value and interest.

The following papers were presented in Section 4:

By Herr Prof. Dr. Rörig (Germany).—The Fundamental Reasons for Bird Protection.

By Herr Dr. Heuss (Germany).—Concerning the Urgent Necessity of an International Association of Bird Protection Societies in Various Countries.

By Herr Prof. C. G. Schillings (Germany).—Concerning the Necessity for Prohibition of Sale of Bird Feathers for Trimmings in All Countries.

By Herr Dr. Schwartz (Germany).—Are International Bird Protection Societies Desirable, Because Their Aim Is to Save Birds from Being Used for Hat Trimming?

By Herr Dr. Dietrich (Germany).—The Bird World of Cold Northern Islands and Bird Reservations of the Jorsand Society.

By Herr Prof. Schweder (Austria).—Bird Hunting and Bird Protection.

By Mr. Buckland (England).—On the Destruction of Wild Birds in General Throughout the World and the Pressing Necessity for an International Conference to Consider the Whole Question.

By Frau Van Hoorde (Belgium).—Bird Protection and Ladies' Fashions.

By William Dutcher (America) two papers.—The History of the Audubon or Bird Protection Movement in North America. Some Reasons Why International Protection Is Necessary.

There was a very strong and unanimous sentiment in the Congress that drastic action should be taken at once, in all parts of the world to prevent the further use of the plumage of wild birds for millinery ornaments. It was shown conclusively, that the live bird was necessary as an aid to agriculture and forestry, and also for the health and comfort of mankind. It is also shown that many species of wild birds were dangerously near extermination.

The members of Section 4 unanimously reached certain conclusions. They also formulated six rules and regulations to be proposed to the Home Governments of the delegates to the Congress and, finally, selected a permanent International Committee for Bird Protection.

The conclusions, proposed rules and regulations, and the permanent International Committee suggested by the Section, were unanimously ratified and adopted by the entire Congress, and are as follows:

Conclusions

"The Fifth International Ornithological Congress, representing the ornithological science in all countries, draws attention to the absolute necessity for the preservation of birds, especially those which, by reason of their plumage, are too rigorously persecuted.

"It is to be suggested that each country should issue special regulations dealing with this subject.

"The Acting International Committee are earnestly requested to take the necessary steps for the purpose of drawing up an International agreement suggesting the rules and regulations for the protection of birds, especially for the species killed for their plumage, which otherwise are too much sought after."

Rules and Regulations To Be Proposed

"1. Rational shooting laws, especially for shooting on the high seas, as well as special laws for the protection of birds.

"2. Prohibition of export and import of plumes of wild birds for millinery purposes.

"3. Prohibition of buying and selling such feathers that are not wanted for scientific purposes.

"4. Propagation of ornithological knowledge in the widest circles.

"5. Instruction of official and private organs.

"6. Instruction of the youth."

International Committee for the Protection of Birds, Appointed at the Fifth International Ornithological Congress in Berlin, June 4, 1910.

Chairman: Dr. Heuss.

Austria.—Prof. Bruno Schweder, Weisskirchen.

Bavaria.—Freiherr von Gebsattel, Bamberg.

Belgium.—Dr. Alphonse Dubois, 42 Rue de Chalats, Brussels; Madam C. van Hoorde, 61 Rue de la Vallée, Brussels.

Denmark.—Lieut. Col. Mehrn, Copenhagen.

France.—Dr. A. Menegaux, Museum Histoire Naturelle, Paris; Louis Ternier, Houfleur, Calvados.

Germany.—Freiherr von Berlepsch, Schloss Berlepsch, Post Gertenbach, Witzenhausen; Dr. Heuss, Leostrasse 33, Paderborn.

Great Britain.—Lord Avebury, London; James Buckland, Royal Colonial Institute, Northumberland Ave., London, W.C.

Holland.—F. J. A. van Vollenhoven, Orangesingel 3, Nijmegen. Prof. Dr. J. Ritzema-Bos, Wageningen.

Hungary.—Stefan Chernel von Chernelhaza, Kösseg.

Italy.—Count Arrigoni Degli Oddi, University of Padua, Padua.

Norway.—Oberhofstallmeister Sverdrup.

Russia.—F. E. Stoll, Grosse Küterstrasse 18, Riga; Baron Harald Loudon, Lisden bei Wolmar, Livland.

Sweden.—Prof. Dr. Einar Lönnberg, Vetenskapsakademien, Stockholm.

United States.—Wm. Dutcher, 141 Broadway, New York City; T. S. Palmer, Department of Agriculture, Washington, D.C.

The Proceedings of the Congress will be published before the close of the year and will be for sale by the permanent officers of the Congress.—W. D.

Some Reasons Why International Bird Protection Is Necessary*

By William Dutcher, F. A. O. U.

After reading the admirable and comprehensive historical sketch of the development of international bird protection in Europe, written by Otto Herman, and published by the Royal Hungarian Minister of Agriculture, Ignatus de Daranyi, I was greatly astonished to discover that during the half century in which the subject had been considered by the great powers of Europe, through their scientific representatives and their learned ornithologists, that one of the greatest causes of bird-destruction, not only in Europe but in all other parts of the world, had never been discussed. I refer to the slaughter of birds for millinery purposes. The only mention of the millinery trade may be found on page 122 in the report of the International Ornithological Congress, held at Paris in 1900, which reads as follows: "The first event was that the delegates of the Paris feather merchants and of the millinery houses,—two branches which demanded and still demand the sacrifice of billions of poor birds,—appeared at the Ornithological Congress to raise their voices in opposition to the cause of bird protection, which threatened to injure their material interest."

Surely if the members of the several Congresses which have met in the past could not agree upon any schedule of birds that were beneficial to agriculture, or, on the contrary, were supposed to be noxious, it would seem that the destruction of birds for millinery purposes would have been a common ground upon which the delegates from the different countries could have agreed, and might have been in harmony in any drastic measure that would prohibit the use of birds for this wasteful purpose. The Paris milliners protested against any movement which threatened to injure their material interest. I ask whether the milliners have any interest that is paramount to the interest of agriculture and its allied industry, forestry. These two industries need the live bird, and necessarily must advocate their protection and increase. On the other hand, the milliners demand a dead bird, and require that it shall be killed at a season of the year when it is in its best plumage, that is, during the period of reproduction; the result being decrease and eventual extermination.

There is a legal side to this question: In America, wild birds are considered the property of the state, and the milliners have no legal right to kill them, as they are thus depriving the state of one of its most valuable assets. I am not sufficiently informed about the laws of European countries to know whether wild birds are considered the property of the state, but if they are, the milliners of Europe have no more property rights in birds than have the milliners of the United States.

I am happy to be able to say that in the United States, and in fact, the greater part of North America, the traffic in wild birds' plumage by the millinery dealers has been greatly restricted through the efforts of the Audubon Societies; however, to make this restriction more effective, we need the help of all the great world powers.

America cannot protect her own birds, if the countries of the Old World offer a market for the plumage of American birds, as they are now doing.

Twenty-five years ago, there were

*Presented at the Fifth International Ornithological Congress, Berlin, May 30 to June 5, 1910.

millions of White Herons breeding in the United States; today there is only a pitiable remnant of the same, and, owing to the high prices offered for the plumes of these birds, makes it difficult and almost impossible to preserve even the small remnant remaining.

The stock of these birds having been exhausted in the United States, the plume-hunters have followed the White Herons to other parts of the world, and in many localities these beautiful examples of bird life are on the verge of extermination; this extermination is caused solely by the millinery trade.

The Birds of Paradise are another example of this unholy traffic. The range of these birds being so much more restricted than that of the White Herons, it will take a much shorter time to exterminate them than it has the Herons. Have the milliners of Paris, or London, or Berlin, or New York, any right to demand the privilege of selling the plumes of so valuable and interesting a species as the Bird of Paradise when they know that they are on the verge of extermination?

Among the large reservations established by President Roosevelt was one known as the Hawaiian Islands Reservation. Recently Japanese poachers stationed themselves upon these islands, and before they were discovered by the United States authorities, they had destroyed over a quarter of a million Albatrosses, simply that they might take the wing quills for the millinery market, and ship them to London, via Japan. Is this right? Should not Japan aid the United States in the preservation of her birds by entering into an agreement to that effect.

The Americas have among their birds those little gems of the air known as the Hummingbird. Hundreds of thousands of these birds have been destroyed for the millinery trade, and have been sold at the London feather sales. In the February, 1910, sale a large number of Ruby-throated Hummingbirds were sold; these birds are only found in eastern North America. From there they migrated to northern South America, where they were killed and shipped to the London markets. How can the Americans protect their Hummingbirds if they may be killed in South America, and sold in England for use wherever birds are used for millinery ornaments?

One need do no more than to examine the schedules of bird skins offered for sale at the London auction markets every sixty days, to realize how important it is that some drastic steps be taken to stop this enormous drain on wild bird life: Herons, Trogons, Hummingbirds, Toucans, Macaws, Tanagers, Emus, Birds of Paradise, Marabou Storks, Crowned Pigeons, Cockatoos, Parrots, Rifle Birds, Kingfishers, Pheasants, Albatrosses, Hawks, Bitterns, Lyre Birds, Grebes, Owls, Terns, Gulls, Bustards and Cuckoos are some of the many species dealt in—sacrificed at the behest of fashion.

A suggestive item in all of the schedules is "Various Birds." As the several species that have been most dealt in in the past, the gorgeously plumed birds, become scarcer and consequently more expensive, the milliners have other species sent them to test the market, and should any of them prove to be acceptable to fashion, then that species will be raided also—so much for the slaughter of birds for millinery purposes.

There are other vital reasons why Europeans should take active steps for an international agreement, and they are that thousands of the insectivorous birds of Europe are shipped to the United States every year as cage birds. Do the Europeans care so little for their song birds that they are willing to permit this cruel traffic? The Americans stopped such export several years since, to the great advantage of the country.

There are also thousands of game birds, such as migratory Quail, the Gray Partridge, and the Lapwing, that are sent to the American markets, for use in hotels and fashionable restaurants. Are the Europeans willing to have such birds slaughtered, and shipped out of the

country to pamper the taste of foreign gourmands?

Nature, with her infinite wisdom, created birds for a definite and specific purpose, and placed them where they would do the most good in preserving the exact balance she insists upon. When man steps in to disarrange this balance, he is taking a dangerous step. The members of this Congress should protest against any marked disarrangement of nature's accurate plans by the plume and game dealers, who reap a paltry individual benefit by the destruction of the assets of a state that are of the utmost scientific importance and economic value. The paltry sum realized by these individuals for the dead bird cannot be compared for a moment with the enormous value of the live bird to the agriculture and forestry of a state. Let us as scientists insist that the conservation of birds, rather than the waste of birds, is the best plan for every country in the world.

When the world awakened to the fact that peace was more conducive to happiness than war, and a Peace Conference was called at the Hague in 1907, forty-three signatory countries participated in the Conference.

While it is possible that the preservation of wild birds, which are so necessary for the agricultural interests of the world, is not quite as important a subject to consider as the peace of the world, yet it certainly can take the second place. I conceive it to be the duty of this Ornithological Congress to recommend to the forty-three countries which participated in the second International Peace Conference, and as many others as it is possible to get to coöperate, that they enter into an agreement, one of vital importance and from which will accrue lasting benefits.

The agreement suggested is that no country in the future shall permit any of its wild birds or their eggs to be shipped out of its territory, either alive or dead, for food or millinery ornaments, or any other commercial purpose whatever.

Further, that in the future no country shall permit the importation into its territory of any wild birds, either alive or dead, or their eggs, to be used for food or millinery ornaments, or any other commercial purpose whatsoever. In this way the laws between the countries party to this agreement become reciprocal, and each country will be able to retain its own wild birds for the benefit of its agriculture and forestry, and its own citizens; each signatory power will help each of the other countries to enforce the non-export regulations by having a non-import regulation relating to the wild birds of any other country. These laws or regulations should cover *every bird* of a country; there should be absolutely no exceptions made whatever, except that under proper governmental restrictions in the form of a license, live birds might be exchanged for propagation, and dead birds as specimens for the scientific study of ornithology in natural history museums, and private collections of a strictly scientific character. These two drains upon the bird life of a country would be so small that it would not be appreciable, and at the same time it would advance the cause of bird protection by giving each country a knowledge of the avifauna of all other countries, and would also enable any country to engage in the experiment of propagating extralimital species.

Such an agreement as the above may appear drastic, but it certainly is the only possible way to change the present distressing conditions regarding the wild birds of the world.

Members of the Congress, a vital question is now before us. We cannot avoid the issue by closing our eyes to it. It is for us who love birds, who understand birds, who have a scientific knowledge of the question, and who represent countries widely separated from each other, to give this matter serious and aggressive attention. We will not be performing our duty nor embracing the great privilege that we have of conserving bird life, if we do not at this Congress take the necessary steps that will result in changing the

present abhorrent conditions. It will not be sufficient for us to merely argue the question of whether birds are noxious or beneficial; we all know that certain of the valuable and interesting birds of the world are being rapidly exterminated, and it is our duty to take steps to stop this extermination. If this matter is referred to a Committee, it must be to one that will not sleep, and only awaken five years from now, when another Congress is held. By that time it may, and probably will be, too late to save several species of birds that soon must be classed among extinct forms, the list of which is already too large.

Members of the Congress, I leave you these thoughts for your earnest consideration.

The Mary Dutcher Memorial Fund

The absence of Mr. Dutcher, while attending the International Ornithological Congress, was considered by a number of his friends to be an admirable opportunity to give tangible expression to the esteem in which he and his work are held by every one in this country interested in the protection of birds. Under the leadership of Mr. W. W. Grant, a committee was therefore formed and contributions solicited to a fund which, in commemoration of the sympathy and support Mr. Dutcher's daughter, during her all too brief life, had always given her father in his ceaseless labors, was named the Mary Dutcher Memorial Fund.

Both the number and the character of the responses which were received to the committee's circular letter, showed that the plan it proposed met with the most widespread and hearty approval. Although only a short time was available, and this at an unfavorable season, the fund amounted to nearly $7,000 before July 1, and additions to it are still being made daily.

This substantial testimonial was presented to Mr. Dutcher, as President of the National Association of Audubon Societies, at a luncheon given to him on July 14, shortly after his return from Europe, and if each contributor to the fund could have seen the profound sense of appreciation with which it was accepted, his pleasure in taking part in this well-deserved tribute would have been more than doubled.

It is proposed that the interest on the Mary Dutcher Fund be used in such a manner that a report on the results attending its expenditure be rendered yearly.—F. M. C.

Bird Legislation in England

There is now before the British Parliament a "Bill to Prohibit the Sale or Exchange of the Plumage and Skins of Certain Wild Birds." Section one reads as follows:

"1. (1) Any person who, after the commencement of this Act, shall have in his possession for the purpose of sale or exchange the plumage or skin, or any part of the plumage or skin, of any dead wild bird imported or brought into the United Kingdom on or after *the first day of January, one thousand nine hundred and eleven*, which is included in the schedule to this Act, or not exempted from the operation of this Act, shall be guilty of an offence, and shall on summary conviction be liable for the first offence to a penalty of not exceeding *five pounds*, and for every subsequent offence, to a penalty of not exceeding *twenty-five pounds*, and in every case the court shall order the forfeiture and destruction of the articles in respect of which the offence has been committed."

There are six sections in the bill; all except the first one relate to enforcement and exceptions. The schedule is comprehensive, and when the bill becomes a law it will do much toward stamping out the use of the plumage of wild birds for millinery ornaments; further, it very closely follows the recommendations of the International Committee in regard to non-importation.

SCHEDULE

The Birds of Paradise. Family *Paradiseidæ*.

The Hummingbirds. Family *Trochilidæ*.

The Monal. Family *Phasianidæ*.
Any one of the several species of Asiatic Pheasants of the genus *Lophophorus*, as the Impeyan Pheasant.

The Argus. Family *Phasianidæ*.
Any one of the several species of Asiatic Pheasants of the genus *Argusianus*, as the Argus Pheasant.

The Crowned Pigeon. Family *Columbidæ*.
Any one of the several species of large crested Pigeons of the genus *Goura*, inhabitating New Guinea and the adjacent islands.

The Lyre Birds. Family *Menuridæ*.

The Emus. Family *Dromocidæ*.

The Rheas. Family *Rheidæ*.

The Owls. Family *Strigidæ*.

The Kingfishers. Family *Alcedinidæ*.

The Macaws. Order *Psittaci*.
Any Parrot of the genus *Sittace* or *Macrocercus*.

The Stork tribe. Family *Ciconiidæ*.

The Heron tribe. Family *Ardeidæ*.

The Ibises and Spoonbills. Family *Plataleidæ*.

The Todies. Family *Todidæ*.

The Cock-of-the-Rock. *Rupicola aurantia*.

The Quezal, or Resplendent Trogon. *Pharomacrus mocinno*.

"2. The Privy Council may at any time, by notice published in the 'London Gazette,' add to, or remove from, the schedule to this Act the name of any other foreign wild bird, and thereupon the provisions of this Act shall take effect as if such bird had been included in or removed from the schedule to this Act.

A Provisional Committee has been established in England to consider the necessity of taking action with regard to the destruction of birds in British Colonies for their plumage. Chairman, The Right Honorable the Earl of Crewe, K. G., Secretary of State for the Colonies; the Right Honorable E. S. Montague, M. P., Under Secretary for India, and one other. These represent the Colonial Office. Mr. C. E. Fagan, Mr. Ogilvie Grant, and one other, representing the British Museum.

The Right Honorable Sir Edward Grey, Bart., M. P., Secretary of State for Foreign Affairs; and the Right Honorable Sydney Buxton, M. P., President of the Board of Trade and Customs, are both deeply interested in the subject of the protection of wild birds, especially those only found in the British Colonies. The President of the National Association spent ten days in London, during which time he called upon many Members of Parliament and also upon Government Officials, urging prompt and drastic action on the part of Great Britain and her Colonies to prohibit the sale and export of wild birds' plumage. There is evidently a strong and growing sentiment in this direction. Pertinent to this, it can be reported that on July 4, the Right Honorable Percy Alden, M. P., introducer of the Sale or Exchange of Plumage Prohibition Act of 1910, asked the Prime Minister whether he had received copies of the resolutions passed by the International Ornithological Congress at Berlin calling upon the Governments of the countries represented at the Congress to prohibit the import and export of plumes of wild birds for millinery purposes, and the prohibition of buying and selling such feathers that were not wanted for scientific purposes; and whether, under the circumstances, he would arrange for a short departmental Bill dealing with this matter to be introduced. Mr. Asquith replied, "Yes sir, I have received a copy of the resolutions adopted by the Conference, and the matter will be considered."

The British members of the International Committee, Lord Avebury and Mr. James Buckland, are thoroughly awake to the momentous question they have in charge, and can assuredly be depended upon to keep England's share in the International movement well to the front; their interest is too deep-seated to be temporary.—W. D.

Notes from Wardens

Many of the colonies of water birds guarded by the wardens of this Association, and the United States Department of Agriculture, are showing splendid increase in numbers each year. For example, Captain William M. Sprinkle, of Pass Christian, Miss., who guards certain of the large reservations on the Louisiana Coast, reports under date of June 6, 1910:

"I have located four more nesting colonies of Laughing Gulls. These include six nesting-places, which will average 1,000 nests each." These are overflow colonies from the reservations where the birds have been increasing with wonderful rapidity since adequate protection has been furnished them.

Warden L. Alvah Lewis, of the Klamath Lake Reservation, situated in Southern Oregon and northern California, states that this year there have been notable increases of Canada Geese and Mallard Ducks. Of the White Pelicans and Cormorants there are at least twice as many this year as last.

From the Atlantic Coast, Warden N. F. Jennett, of the Cape Hatteras Colonies, reports a decided increase of Least Terns and Laughing Gulls. These two birds were on the very verge of extinction when the Audubon Society began its work in these stormy waters a few years ago.—T. G. P.

Destroying Cats in New York

A New York correspondent recently called attention to the undesirability of permitting cats to wander at large in Central Park, particularly during the spring and summer months, when their destructiveness to bird life is well known to be extensive. A letter addressed to Mr. Charles B. Stover, Commissioner of Parks for the Boroughs of Manhattan and Richmond, brought out the interesting fact that a man is employed to guard Central Park from the depredations of creatures calculated to be destructive of birds. He further states that from January 1 to June 1 of the present year, this guardian of the birds destroyed 161 cats found in the park.

While it is a well-known fact that that excellent institution, the American Society for the Prevention of Cruelty to Animals, annually kills many cats, it may be interesting to some to learn that according to a letter recently received from Mr. W. K. Horton, General Manager, the organization killed in New York City 100,904 cats between January 1 and June 1 of the present year. If all the towns and cities in the United States had as good a record for destroying homeless or discarded cats, there would be more song birds to brighten the earth.—T. G. P.

Specific Charges Against Cats

I am a recent subscriber to Bird-Lore and notice with interest the campaign against cats. Although one may be ever so fond of cats, the numerous bird-tragedies of the nesting-season caused by them should lead to the lessening of their numbers. I am skeptical when anyone says "My cats never catch birds; it is only the hungry ones abandoned by their owners."

I have seen an active mother cat in one season devour the contents of almost every robin's nest in an orchard, even when tar, chicken wire and other preventatives were placed on the trunks of the trees. The robin builds so conspicuous and accessible a nest, and is so easily agitated by the approach of a cat, that it is difficult to save the young. Shutting up cats at the time the robins are leaving the nest is a help. One cat brought in Meadow Larks, Chippies, Bluebirds, a Wilson's Snipe, an Ovenbird, two Hummingbirds, a a Flicker, a Swallow and a young Partridge within a few days. As a rule, cats eat birds in secret after being pursued and scolded and having their prey wrested from them, so only a heap of feathers tells the tale.

I have been surprised to note how unconscious people can be to the cries of alarm of the commonest birds about them. If we are educated to notice, it is second nature to fly to the rescue.—Anne E. Perkins, M. D., *Gowanda, New York.*

1. Arkansas Goldfinch, ad. male.
2. Arkansas Goldfinch, im. male.
3. Arkansas Goldfinch, ad. female.
4. Green-backed Goldfinch, ad. male.
5. Lawrence's Goldfinch, ad. male.
6. Lawrence's Goldfinch, ad. female.

(One-half Natural Size.)

Bird-Lore

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Notes on Attracting Birds

By JOHN C. PHILLIPS, Wenham, Mass.

With photographs by the author

THE winter of 1909–10 was rather remarkable for scarcity of winter birds, at least in eastern Massachusetts. During the last of October, 1909, one of the Berlepsch food-bells was placed in position in a low growth of pitch-pine, about five feet above ground, filled with hemp-seed and hung with strips of beef suet. Three weeks later, Chickadees began to feed from the automatically regulated food-trough, and continued to do so in increasing numbers till early spring. No suet was used on the bell after the birds learned the trick of finding the seed. Before any other feeding-place was started, the reservoir was emptied by the birds about every five or six days. It is difficult to estimate the numbers which fed there, but, roughly, it might have been between fifty and seventy. Suet was hung near by and kept fresh. The spot also attracted Kinglets, Juncos, and Downy Woodpeckers; and, as a certain amount of seed was continually thrown out onto the ground (in process of the birds' feeding), Ring-necked Pheasants found it a profitable place to visit.

In a high pine grove about a third of a mile away, another food-bell was hung at a later date. This has been systematically 'worked' by a pair of gray squirrels, apparently mostly in mischief, as the seed lies on the ground. They have sometimes emptied the reservoir in a day and a half. This experience presents an unlooked-for drawback in the application of the bell. How serious this would be, only time can show.

One of the Hessian food-houses, pictured and described on page 71 of the manual "How to Attract and Protect Wild Birds" (National Association of Audubon Societies), was put in operation early in January. Built by the local carpenter, painted, and fitted complete, with glass, it cost twelve dollars. Several might be built for slightly less. This house will last a long time. It combines accessible food with shelter; and also provides possible nesting-sites. If properly "brushed" up, it keeps the ground under it free from snow, forming a protected spot for the ground feeders. This seems to be avoided by the Crows, which are the bane of all those who attempt to feed the game birds.

The Hessian food-house has done good work. The birds fed there regularly and used the place in severe weather. They still, however, used the food-bells.

Beginning March 1, the forceps were used to clean out the nesting-boxes. In a considerable number, white-footed mice (*Peromyscus*) were found living in great comfort and security, even as high as thirty-five feet above ground. Their nests were found in many more. The mice and red squirrels have done a good deal of damage about the box openings. Where the gnawing was extensive, it was repaired with tin. A number of new boxes were placed in position

THE BERLEPSCH FOOD-BELL

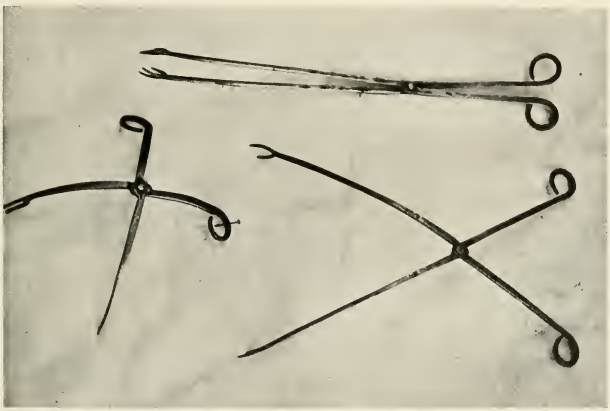
at this time, the inside of the apertures on all of them being carefully fitted with tin.

It must be confessed that gypsy-moth egg-clusters were found in a number of the boxes, and were probably present in many of the small ones, where they could not be seen. They afford shelter for these pests. I have had corks prepared to fit the different boxes, and intend to try stopping the apertures before the moths begin to fly. This will also, I hope, discourage the squirrels and mice.

Three of the large boxes (size D) had been occupied by Owls, and in one

of them a Screech Owl was found nesting. Probably there would have been more of these birds about if seven or eight Screech and Long-eared Owls had not been trapped, in my absence, by mistaken zeal, last fall, 1909. Also the mice would not have been quite so much in evidence. This, however, will not happen again.

The English Sparrows were shot during the early part of the winter; but, after one hundred and thirty of them had been killed, they became so shy that they were negotiated with poison. A mixture of wheat and hemp-seed was treated with strychnine and starch, according to directions given in United States Farmers' Bulletin No. 383. The Sparrows were previously baited to two feed-troughs on a barn and shed roof. After they had been thoroughly



FORCEPS FOR CLEANING NESTING-HOUSES

accustomed to feed from these, the poison was placed in them. It is impossible to say how many were killed by this method, as they were found dead at some distance, and numbers were picked up by a neighbor's cat. The result, however, was highly satisfactory, as very few were left by the time the Bluebirds arrived.

For the present breeding-season, I have nothing of especial interest to report except the following: The size 'C' box ($2\frac{3}{8}$-inch opening), which had not been put out before, became immediately attractive to the Flickers. This size was placed in more or less isolated trees at heights of from twenty to thirty feet. A goodly number were occupied, one brood of Flickers being raised in an oak tree only a few yards from the terrace wall.

As to the other boxes, I was disappointed in not finding a single nesting Chickadee or Downy Woodpecker. The only species found besides the Owls

and Flickers were Tree Swallows and Bluebirds. The Swallows were here in great numbers, preferring a row of boxes along the lake.

The English Sparrows have, in a most extraordinary way, been recruiting their numbers. By late fall, they will again constitute a flock of from three hundred to five hundred birds. I shall not attempt any more shooting, believing that here, at least, it is best to keep them tame, and "dose" them at appropriate intervals.

Taken as a whole, the results are not entirely satisfactory. One thing is certain, the person who places in position a number of these nest-boxes devolves upon himself a certain and never-ending responsibility, whenever English Sparrows are present. A safe place to put them out is on dead trees and stumps surrounded by water. In the thick woods, also, the boxes are left alone by the Sparrows; but, unfortunately, in such places they have also been disregarded by other species. If one wishes to increase his crop of bees, the boxes will help him out, for they are favorite resorts for these insects.

Wing-Bars as Field-Marks

By EDMUND J. SAWYER

Illustrated by the author

TREE SPARROW WITH BAR ON LESSER COVERTS CONCEALED

THE white wing-bars of certain of the Sparrows and Finches are commonly mentioned as good field-marks, while similar marks in certain other members of the same family are as commonly disregarded, or declared to be valueless in that connection.

The reproduction in BIRD-LORE of a Redpoll drawing by the writer was criticised because the figures of the birds, each and all, distinctly showed two white wing-bars. Yet this species certainly has these two wing-bars, and they are, in reality, of the same kind as those of a Tree Sparrow, or of even a so-called White-winged Crossbill. To be exact, these bars are formed by the white tips of the greater and middle wing coverts.

The fact is, such bars may or may not serve as field-marks, not according to the species, but according to the mood, so to speak, of the individual bird, of whichever of these white-wing-barred species it may be. The bars may or

WHITE-THROATED SPARROW WITH RING-BARS CONCEALED

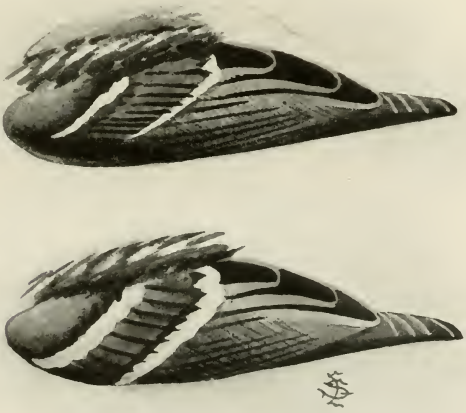
may not be observable even in species such as the Tree Sparrow, White-throated Sparrow and White-winged Crossbill. In a flock of any of these birds, you are pretty likely to see individuals with the wing-bars exposed; others showing them more or less obscurely, and some, though fewer, showing no trace of them. In other words, going only by the field-mark (alleged) standard, you will be pretty sure to discover a goodly number of 'undescribed' species in a flock of almost any of the white wing-barred Sparrows.

REDPOLL SHOWING WING-BARS

The position of these wing-bars is such that a slight puffing of the breast and side feathers, on the one hand, and of the scapulars, on the other,—a common practice with birds in general,—is apt to cast them into shadow; while a greater, but still not uncommon, puffing or fluffing out of the feathers may quite conceal the coverts, one and all. Hence the *extent* of the bars, or, for that matter, of any other marking, when still confined to these coverts, is not necessarily of the first importance. In this connection, see an excellent photograph, by Clifford H. Pangburn, of a Redpoll—page 273 of BIRD-LORE, November–December, 1909. This picture illustrates how the first wing-bar (tips of the middle coverts) may be nearly or quite concealed by the scapulars alone.

As for Redpolls in particular, the popular notion that their wing-bars are of no importance as field-marks is a mistake, nor do I know a single species of bird fairly easy to approach, having such wing-bars, in which the latter are not field-marks.

However, it is certainly true that the Redpoll seems less given to displaying his wing-bars than, for example, does the Tree Sparrow. His small size, as compared with that of our other winter Finches, and his association usually with the very severest of winter weather, suggest that he may be more habitually "puffed out with the cold"—an expressive, if not a strictly scientific phrase—than the others. Therefore, I venture the opinion that the visibility of the Redpoll's wing-bars in the field is, after all, largely a matter of temperature.



WINGS OF TREE SPARROW TO SHOW VARIATION IN BARS

Must Wrens Be Taught Nest-Building?

By CRAIG S. THOMS, Vermilion, S. D.

THE male Wren speedily discovered the Wren-house that I placed on top of a slender seven-foot stump for him, and for a week he had been bubbling over with song, in perfect confidence that a little lady in brown would soon come to share his joys. He did not know that I made the Wren-house face my study-window so that I could observe his every movement, and discover in his mate, if possible, any lack of efficiency in the management of household affairs, —but I did.

"SOMETIMES SHE WOULD FIND HERSELF ON THE WRONG SIDE OF THE TWIG"

When he got out of breath singing, which seldom occurred, he would carry a twig into the house just to rest himself. And in this twig-carrying business he was a past master. Up he would come with a large twig, balancing it squarely in the middle; but the moment he reached the little round door, he deftly slipped his bill to one end, inserted that end in the hole, and crowded himself in with it.

In the coming of the little lady in brown, his expectation was soon realized; but she was evidently a bird of the first year, without experience, either in match-making or nest-building. In regard to the former, she was unusually shy, doubtful, and hesitant. In regard to the latter, when things were finally settled between the two, and nest-building began in earnest, her inexperience was apparent. She had all the courage and enthusiasm characteristic of a first home-builder, as was shown by the large twigs which she unhesitatingly

attempted to carry, and surprisingly large ones she succeeded in bearing to the small door, but here her inexperience was revealed. No matter how large the twig, she held it by the middle, and sought to push it into the small door broadside. She seemed surprised that it would not go in, and dropped twig after twig, not knowing what was the matter. Sometimes she would find herself on the wrong side of the twig, as shown in the photograph, and get herself into positions which rendered success impossible. It was only after many attempts, and much failure, that she learned the trick of slipping her bill along to one end of the twig, and pushing that end in.

"SHE LEARNED THE TRICK OF SLIPPING HER BILL ALONG THE ONE END OF THE TWIG"

From this observation it would appear, not that the young bird was taught, nor yet that her instinct was wholly adequate, but that, following her instinct, she quickly taught herself by practice and failure how to work effectively. It is true, the male bird would occasionally come with a twig, and carry it in with the skill of experience; but the female was not watching, and, as far as I could judge, did not learn from his example. On the other hand, following her instinct to build a nest of twigs, she brought the twigs to the door of her home, and sought to push them in, taking a new grip with her bill after every push, but without moving the bill purposely to one end of the twig or the other, as the old bird did when he arrived at the house. In pushing the twig seemed accidentally to slip one way or the other, and occasionally the little bird would be successful. A few successes seemed to awaken her to the secret, and it was not long before, upon bringing a twig to the door, she would deliberately begin to move her bill to one end or the other.

A Record of the Outcome of Seventy-five Birds' Nests

By RAYMOND H. WHEELER, Berlin, Mass.

TWENTY Robins' nests built during the month of May were watched, and the following facts obtained. Out of seven that were built in apple trees, from five to fifteen feet up, two were robbed by Crows, two nests were deserted before they were completed and, in three cases, the broods were raised successfully. Two nests were found in maples, both over twenty feet from the ground; one was robbed by a red squirrel when the young were nearly fledged, and the eggs in the other were eaten by Crows. Two nests, one in a cedar and one in an oak, were destroyed by Blue Jays; one in a pear tree was deserted because of its open position, and one placed in a pine was successful. The young from three nests which were built in buildings of some kind, matured. The only nest destroyed by accident was situated in a pile of rocks, where it was washed away by a rainstorm. Two more nests which were successful were in a grape-vine and in a wood-pile. In all, four nests were deserted, six were robbed, two by Crows, in apple trees; and another in a maple; Blue Jays and a red squirrel were responsible for the destruction of three others. Only one nest fell a victim to an accident, while the remaining nine were successful.

A record of ten Song Sparrows' nests shows that broods were raised from two that were situated near brooks, and that two others, similarly placed, were robbed, probably by cats. Four others, which were successful, were placed under a brush-pile, under a stone wall, in the tall grass around a sand-bank and on a hillside, respectively. One in a bed of wild lily-of-the-valley and another in a strawberry patch were deserted because of their open positions.

The young from three Chipping Sparrows' nests were allowed to mature; the nests were all situated in shrubs of some kind. The wind blew down one which was built in an apple tree; a fifth placed in a grape-vine was torn to pieces by an unknown enemy, probably a cat.

I could find but two Vesper Sparrows' nests. However, one was successful and the other was deserted. Both were on the ground and near habitations.

Baltimore Orioles were very common. Four nests out of the five that were watched turned out successfully. The fifth was destroyed by accidentally cutting off the limb from which it hung.

Notwithstanding the fact that many bird-boxes were put out for the Bluebirds, they seemed to prefer hollow limbs previously dug out by Woodpeckers. One box, however, was inhabited and the young were raised. One nest in a hollow limb was successful, but the young from another fell out before they were able to fly, and died. An old pump served as the home of a pair of Bluebirds, but too-frequent visits drove them away.

Two Phœbes' nests out of five were attacked by lice, and the young killed. Those that were successful were built in an old mill, on a piazza of a dwelling-house, and under a stone bridge, respectively. The first two were in an old hen-house and in a barn cellar.

I was fortunate in finding two Hummingbirds' nests. Both were in large maples and about ten feet up. One was deserted, with the eggs, and the other turned out successfully.

Three Red-eyed Vireos' nests, all in maples, and from five to fifteen feet up, were left undisturbed, and the young flew, but a fourth was robbed by Blue Jays; it was in an oak.

A snake was responsible for the destruction of one Catbird's nest and eggs; another was deserted before any eggs were laid. The other that was watched turned out all right. All were placed in shrubbery or thickets.

Yellow Warblers were plentiful, but only two nests were found, one of which was deserted, with an egg, the cause unknown; the other, in a maple, as was the first, was found while the young were hatching. The nest was undisturbed and the young flew.

Unfortunately, only one out of three Brown Thrashers' nests were left unmolested, and the old birds given a chance to rear their young. A fire scared away one pair; too frequent visits on the part of curious children caused the desertion of another. Both were in brush-piles. The remaining successful nest was in a scrub apple.

Two Chickadees' nests, both in dead saplings were discovered, one with seven and the other with nine eggs. The first was deserted, for some unknown reason, but the nine birds from the other flew.

Two Downy Woodpeckers' nests were successful, but, to offset them, two others were robbed.

A Meadowlark's and a Red-winged Blackbird's nest were found not far apart in the same meadow, and the young from both were raised.

A large number of Barn Swallows built their nests in the same barn and, as far as I could find out, all were successful. Only two were reckoned in with the rest.

It may be added that a Whippoorwill's nest with two eggs was found, but, on going to it the next night, the eggs were gone. It is assumed that the bird followed a custom attributed to the species,—that of removing the eggs on being disturbed.

Summary of the Seventy-five Nests

	No.	Per cent
Nests finished	71	94⅔
Nests deserted before being finished	3	4
Nests deserted before the eggs were laid	4	5⅓
Nests deserted with eggs	7	9⅓
Nests destroyed by natural enemies	13	17⅓
Nests destroyed by man	2	2⅔
Nests destroyed by accident	3	4
Nests where the young were raised	43	57⅓
	75	100

A number of years previous, a record was kept of a smaller number of nests, and the per cent where the broods were raised did not exceed twenty. These nests were situated in the same vicinity as those recorded above, and the conditions, outside of devastations by natural enemies, would not vary to any great extent. Since then, red squirrels, cats, Crows, and Blue Jays have been kept away, as much as possible, by the shot-gun. It seems, then, that it is safe to conclude that by a little effort and care the percentage of successful nests can be made to increase. All the nests mentioned above were around buildings. Thus, the records prove that, with a little help, the number of birds around the home, in the garden and on the farm, will increase, and the quantity of insects should decrease in proportion. Certainly it is worth while to help our feathered friends a little, and learn something of their habits and struggles for existence, and be repaid by their company, song and aid in lowering the billion-dollar-a-year tax of seed and insect pests.

FLICKER AT NEST OPENING
Photographed by Jno. M. Schreck, at Edmonton, B. C.

A Day with the Birds in Southern Arizona

By STEPHEN SARGENT VISHER, Carnegie Desert Laboratory, Tucson, Ariz.

CACTUS WREN AND CONTAINING FOUR YOUNG
Photographed by W. W. Arnold, at Tucson, Ariz., Feb. 9, 1909

THE morning of June 15, I was awakened, before dawn, by the increased volume of sound caused by several birds singing in unison, perhaps a Mockingbird, a Cassin's Kingbird and a Hooded Oriole, for they were the first that I recognized. Soon the drowsy puttering of Vermilion Flycatchers, the spirited whistle of clumsy Pyrrhuloxias, the warbling of the House Finches, and, in the notes so familiar, the Red-winged Blackbirds from near their nests in the trees by the ditch (in lieu of rushes, they have here become tree-inhabitants), were recognized. From the distance, the restful 'purring' call of the Gambel's Quail, and the sharp, though very musical *whit* of the Palmer's Thrasher, completed the melody.

The peculiar 'bubbling' call, which is substituted by the Texas Nighthawk for the *peent* and boom of the eastern bird, sounded as from afar—it was so faint,—but, in fact, the authors were flying within a few feet of me, as I lay on my cot on the flat roof of the adobe house.

A call from the cactus-covered slopes behind was the gentle, rapid cooing of the Pygmy Owl. Even while listening to this, a large one, perhaps a Short-eared, flapped softly past, almost close enough to fan my cheek.

As the spreading light grew brighter, the conviction that my work could be neglected for the day grew stronger, and, as the sun rose, bordered by a strange green light (one of the wonders of the desert), I arose and girded up my loins.

The long ride across the broad valley to the mouth of Pima Cañon in the Catalina mountains was full of interest. All desert life takes advantage of the cool of the morning, and is out where it can be seen. Gophers and ground squirrels of several varieties were about, and watching for them were the slim coyote, of which I had a glimpse as I topped a low hill, and the sailing Red-tailed and Swainson's Hawks, and from the top of giant cacti the ubiquitous Sparrow

Hawk. Flying about such a cactus, was a pair of Western Martins, which had taken possession of a deserted Woodpecker's hole. There were several holes in this branched trunk, which towered some forty feet high, and it is within the range of possibility that the Gila Woodpecker, the Gilded and Red-shafted Flickers seen near, and Pygmy and Elf Owls, in addition to the Martins, had a peculiar interest in it. From the rigid, leafless, though strangely attractive *paloverdes* along the roadside, the Black-capped Plumbeous Gnatcatcher hurried her brood; from the mesquite, the grayish but strictly upright, an Ash-throated Flycatcher flew leisurely, uttering his Crested Flycatcher-like note of defiance; out of the inhospitable looking chollas cactus, the somber Cañon Towhee made silently away; and, hopping about in a vicious 'cat's-claws' shrub, a brood of Desert Sparrows watched me pass. They look so dusty that one thinks they never bathe; but they know what water is, for I watched one take twenty-three mouthfuls from a drinking-pan near my house, one hot day.

The telephone posts were frequently guarded by a White-rumped Shrike, and the single wire held more than one Rough-winged Swallow.

Birds were not the only life along the road. Lizards dashed away a few yards and stopped to see what they had run from—little amber fellows with barred tails curled up over their backs (zebra-tails), big scaly gray ones (Clark's and collared swifts), and striped and spotted road-racers, with several others. The flowers, too, would be noticed by any true bird-lover; the red to yellowish green ones, protected by the inch-long spines of the five species of chollas or tree opuntias; the waxy white wreaths of the fluted giant cactus or ṣiguaro; but especially a startling group of agaves, which thrusting their pure white inflorescence through the green mesquite of an arroyo, caught the eye from afar.

Leaving my bicycle at the end of the old side-road, and, taking my binoculars, I entered the cañon. Within its rocky walls there is a little kingdom, held together by the presence of *water*. About the springs grow huge cottonwoods, and higher up, evergreen oaks, both of which swarm with life. I threw myself gratefully in the first shade. While resting, a song suggesting somewhat that of Audubon's Hermit Thrush, but more that of the Western Meadowlark's "I-want-to-speak-to-you" call, broke out clearly and sweetly. The lemon-and-black author (Scott's Oriole) was clinging to the wand-like stems of the candlewood or ocotillo. Nearer at hand, came in an undertone a rippling flow of music, which strikingly resembled a Bobolink's when heard from a distance. It was the first, though not the last time that I have heard the Arizona Hooded Oriole sing this sweet undertone song. Its ordinary one is quite loud, and reminds one at once of the notes of the Yellow-headed Blackbird. The finding of links connecting the songs of the Meadowlark, Baltimore Oriole, Yellow-headed Blackbird and the Bobolink, in the songs of other members of the family, is of great interest.

A short distance farther, a brood of Verdins caught my eye. The yellowish crowns and rumps were more than ordinarily noticeable against the dark background of grape leaves. From the lower part of the same clump, a Golden

Pileolated Warbler peered daintily at me, showing his shiny black cap to let all know that he is only a bright relative of Wilson's Warbler.

A ragged, tired-looking Bendire's Thrasher hopped and ran from a shade near the small pool. This bird, with many others, rears its young in the midst of the dry fore-summer. One wonders why it does not wait until the rains come, in July, when food is much more abundant, as the spick and span russet-brown Crissal Thrasher does.

About the pools were scores—almost hundreds—of White-winged Doves, which had gathered, perhaps for miles around, to spend the heat of the day near water. Many of the worthy citizens of the Southwest think it great sport to slaughter them, at all seasons, and, unless one or the other change their habits, there will be far fewer 'Cactus Pigeons' before long.

On the crest of a low rise ahead, a long-tailed, long-billed, streaked bird of considerable size stood preening its feathers. The Road-runner is an oddity at any time, but especially so when standing on one leg, with his crested head twisted and his red eyes gleaming.

One never does become entirely accustomed to an Owl. A Spotted Screech Owl, which flew from the dense shade of a sycamore into a live oak, caused me to seat myself to watch him. A peculiar *whir* was heard, and, turning my head, I beheld a beautiful Broad-billed Hummer, not five feet away, probing into the scarlet trumpets of a pentstemon. Of course, while the Hummer had my attention, the Owl disappeared.

Lying on a small patch of sand near a tiny pool, I dozed, and enjoyed the songs of my new friends—the flood of ascending notes of the Cañon Wren, the plaintive whistle of the White-crowned Sparrow, the happy outburst of the Lazuli Bunting, with many others. As is so often the case, when one lies still, the birds, and other animals, come close around. A Blue-throated Hummer, after drinking daintily, rested on a very nearby twig, panting, but with only the tips of the bill apart. An inquisitive Phainopepla lit on a swaying vine only a couple of yards distant, and, as he swayed, raised his crest, flirted his wings (showing the white patch) and puttered softly while his lead-black eyes shone on me.

It is useless, however, to try to do the day justice; and as I close this sketch I find that I have mentioned only a few more than half the birds seen.

Notes on Birds in the Florida Keys

By MRS. LUCAS BRODHEAD, Versailles, Ky.

I SPENT from January 9 to April 1, 1906, on upper Matecumbe, an island five miles long, about eighty miles south of Miami, Florida. The climate was very fine, the daily readings of the thermometer being from 50 to 74 degrees for the three months. There are seven or eight families residing on the "Key,"—a primitive, polite, simple-hearted, poor, God-fearing people, three generations back from Nassau, and preserving in a remarkable manner an intense form of cockneyism of speech.

There are no mammals on the island except cats, which have a fine chance at the birds in the undergrowth, and a few melancholy dogs, which subsist, like the people, largely upon fish. The undergrowth is very dense, only penetrable where a number of paths have been cut leading to the clearings, called farms, in the interior. Everywhere, and at all times, one must guard against the very troublesome red-bugs.

I did not find birds to be as abundant as I had anticipated. I did not get near enough to identify a single Duck; learned to know but one species of Gull, and one Tern; saw few species of Warblers; not a single Sparrow of any kind, and identified only sixty-five species, of which sixteen were entirely new to me. The continual blasting going on at Matecumbe and the adjacent islands during most of my stay, for Mr. Flagler's marvelous railroad, building down the line of Keys, probably had much effect upon the bird life. Myrtle Warblers, Mockingbirds and Catbirds were the most common. Quite a number of Hawks, also live on the island. Cardinals were plentiful, and were the only bird that might be said to be in full song the three months.

On March 28, I went to an uninhabitable island seven miles distant, to see a Bald Eagle's nest. The old Eagles let me approach and look at them as long as I chose, only the female showing any nervousness. The one black Eaglet, with closed eyes, stood on the edge of the nest as long as I remained; just as it was reported as doing thirteen days before. The nest was placed in a black-wood tree at the edge of the water, and was twelve or fourteen feet from the ground.

On March 7, when returning from a day's fishing, I found in the possession of a tourist a magnificent male Flamingo. It was shot that morning; it was one of three that had been seen on a sand bank near Matecumbe. The bird was unknown to most of the inhabitants of the island. Only one or two of the older men had ever seen one. The fate of this beautiful specimen was melancholy to a bird-lover. The mail-carrier refused to handle it. The owner, when he heard of the fine for killing or possessing one, had the wings cut off. The body was given to a family for their dinner. When the writer learned of this sacrilege, she rescued the head and a few of the tail-feathers which had been thrown into the bushes.

I append a brief list of the birds identified. Herring Gulls and Royal Terns are very abundant. A fine specimen of Gannet was captured. Florida Cormorant, common; considered fine for eating. Brown Pelicans, large flocks, seen frequently. Man-of-War bird seen daily. Flamingo, called by natives, "Filyamingo," one brought in. White Ibis, two were killed and eaten by the 'Conchs.'

Great White Heron, five were seen at a distance. Ward's Great Blue Heron, one captured alive. Reddish Egret, not uncommon, two were brought in, one in red, one in white plumage. Louisiana Heron, one specimen seen. Little Blue Heron, large flocks in blue and white plumage seen together. Black-crowned Night Heron, one; Yellow-crowned Night Heron, abundant; prized for the table. Limpkin, two; one caught alive, was afterward released. Coots, large flocks seen, feeding some distance from shore, at low tide. Wilson's Snipe, one; Dowitcher, one. Least Sandpiper and Semipalmated Sandpiper, believed to be with flocks of Killdeer. Ring-necked Plover and Turnstones, feeding daily at low tide off Upper Matecumbe. Black-bellied Plover, one.

Mourning Dove, a large flock, lived on the Key. Ground Dove, common. Turkey Vultures, abundant. Marsh Hawk, seen frequently; a large pair of Hawks, supposed to be Red-tailed, nesting on Key. Red-shouldered Hawks, several pairs, called by natives the "Crying Jake"; a pair nested near a house. Bald Eagles, a pair and Eaglet on Twin Sister Key. Pigeon Hawk, one was killed by the natives; Sparrow Hawk, abundant. Osprey, often seen flying high overhead. Florida Screech Owl, one; a large Owl seen, but not identified. Belted Kingfisher, from one to three seen daily. Red-bellied Woodpecker, not uncommon. Ruby-throated Hummingbird, seen several times. Kingbird, seen in March. Phœbe, seen often. Crested Flycatcher, seen a few times. Florida Crow, very abundant, especially in March. Red-winged Blackbird (Florida form), seen and heard daily for two months, later a few nesting. Florida Grackle, and Boat-tail Grackle, seen in March. Painted Bunting, feeding daily in winter with Red-winged Blackbirds; two males and three females seen at one time. Tree Swallow, seen in March.

Black and White Warbler, one seen in March. Parula Warblers, three in different plumage, seen several days in March. Palm Warbler, a fine male seen and heard singing, several days in March, in undergrowth near house, and one seen on the Key with the Eagles.

Myrtle Warbler, very abundant during the three months. Oven-bird, one seen in the spring. Mockingbird, very abundant; forty-seven seen in a morning walk, singing only a very little in early mornings. Catbirds, very abundant in undergrowth, calling, but not singing. The Florida Cardinal Wren and the House Wren, rarely seen, but frequently heard in deep undergrowth. Blue-Gray Gnatcatcher, seen a few times. Robin, apparently lived in interior of the Key.

The Massachusetts Audubon Society's Bird-Lists

INTEREST in the Massachusetts Audubon Society's plan of listing the species of birds seen by its members in the state during the year evidently shows no decrease, and three of the lists for 1909 contain a greater number of species than have heretofore been recorded by any member of the Society during the course of a year,—if indeed they do not actually exceed in number the annual State list of any other observers.

The ten best lists received by the Secretary of the Society for the year ending December 31, 1909, were made by the following members: Lidian E. Bridge, 244 species; James L. Peters, 239 species; Barron Brainerd, 235 species; Harold L. Barrett, 204 species; Anne W. Cobb, 202 species; Richard L. Creesy, 191 species; Anna K. Barry, 188 species; Joseph Kittredge, Jr., 188 species; W. Charlesworth Levey, 166 species; Samuel Dowse Robbins, 131 species. The two lists first mentioned are published herewith.

	List of Birds observed by Lidian E. Bridge, in Mass., from January 1, 1909, to January 1, 1910.		List of Birds observed by James L. Peters, in Mass., from January 1, 1909, to January 1, 1910.	
Name of Species	Locality	Date	Locality	Date
Holbœll's Grebe	Nahant	Feb. 5	Nahant	Jan. 16
Horned Grebe	Nahant	Feb. 3	Edgartown	Jan. 1
Pied-billed Grebe	Ponkapog	Sept. 30	Randolph	April 20
Loon	Magnolia	Mar. 1	Edgartown	Jan. 1
Red-throated Loon	Nahant	Jan. 7	Edgartown	Jan. 1
Black Guillemot	Rockport	Feb. 18	Nahant	Feb. 1
Brünnich's Murre	Magnolia	Mar. 1	Nahant	Feb. 20
Razor-billed Auk	Manchester	Nov. 16	Winthrop	Feb. 20
Pomarine Jaeger	Marblehead	Aug. 25	Ipswich	Sept. 25
Parasitic Jaeger	Ipswich	Aug. 14	West Tisbury	Sept. 8
Kittiwake	Ipswich	Feb. 22	Boston Harbor	Feb. 20
Great Black-backed Gull	Brookline	Jan. 23	Edgartown	Jan. 1
Herring Gull	Medford	Jan. 11	Edgartown	Jan. 1
Ring-billed Gull	Nahant	Feb. 3	Ipswich	Oct. 2
Laughing Gull	Woods Hole	April 17	Woods Hole	June 30
Bonaparte's Gull	Ipswich	July 31	Woods Hole	Jan. 2
Common Tern	Cohasset	May 31	Woods Hole	June 30
Arctic Tern	Ipswich	July 31	Nantucket	June 30
Roseate Tern	Nantucket	Aug. 7	Nantucket	June 30
Least Tern	Nantucket	Aug. 7	Edgartown	July 3
Wilson's Petrel	Marblehead	June 16	Nahant	June 26
Gannet	Ipswich	Oct. 16	Ipswich	Oct. 2
Double-crested Cormorant	Manchester	Aug. 23	Chilmark	Sept. 10
American Merganser	Brookline	Jan. 16	Edgartown	Jan. 1
Red-breasted Merganser	Nahant	Jan. 7	Edgartown	Jan. 1
Hooded Merganser	Middlesex Fells	Oct. 21	Middlesex Fells	Nov. 20
Mallard	Middlesex Fells	April 2	Jamaica Pond	Jan. 10
Black Duck	Jamacia Pond	Jan. 1	Edgartown	Jan. 1
Red-legged Black Duck	Jamaica Pond	Jan. 1	Edgartown	Jan. 1
Green-winged Teal	Middlesex Fells	Mar. 16	Edgartown	Jan. 1
Blue-winged Teal	Ipswich	Sept. 4	West Tisbury	Sept. 15

Name of Species	List of Birds observed by Lidian E. Bridge, in Mass., from January 1, 1909, to January 1, 1910. Locality	Date	List of Birds observed by James L. Peters, in Mass., from January 1, 1909, to January 1, 1910. Locality	Date
Pintail	Brookline	Mar. 13	Brookline	Feb. 22
Wood Duck	Ponkapog	Aug. 13	Middleton	April 21
Redhead	Jamaica Pond	Nov. 30	Edgartown	Jan. 1
Scaup Duck	Nahant	Feb. 5	Edgartown	Jan. 1
Lesser Scaup Duck	Jamaica Pond	Jan. 5	Jamaica Pond	Jan. 2
American Golden-eye	Nahant	Jan. 7	Edgartown	Jan. 1
Buffle-head	Nahant	Jan. 7	Edgartown	Jan. 1
Old-squaw	Nahant	Jan. 7	Edgartown	Jan. 1
American Eider	Magnolia	Mar. 1	Edgartown	Jan. 1
American Scoter	Nahant	Feb. 5	Nahant	Mar. 13
White-winged Scoter	Nahant	Jan. 7	Edgartown	Jan. 1
Surf Scoter	Ipswich	Mar. 27	Edgartown	Jan. 2
Ruddy Duck	Jamaica Pond	Jan. 5	Jamaica Pond	Jan. 2
Canada Goose	Middlesex Fells	April 2	Cambridge	April 7
Brant	Marblehead	Oct. 26	Winthrop	Dec. 27
American Bittern	Cambridge	April 23	Middleton	April 21
Least Bittern	Cambridge	June 26	.....	.....
Great Blue Heron	Ipswich	May 8	Ipswich	April 17
Green Heron	Waltham	May 24	Franklin Park	May 2
Black-crown'd Night Heron	Middlesex Fells	April 2	Wenham	April 17
Virginia Rail	Cambridge	April 29	Cambridge	April 20
Sora	Cambridge	July 7	Cambridge	May 5
American Coot	Cambridge	Oct. 4	Jamaica Pond	Oct. 19
American Woodcock	Salem	April 24	Belmont	Mar. 30
Wilson's Snipe	Concord	Oct. 8	Cambridge	Mar. 30
Dowitcher	Ipswich	July 24	.....	.....
Knot	Ipswich	July 31	Ipswich	June 19
Purple Sandpiper	Manchester	Nov. 16	.....	.....
Pectoral Sandpiper	Ipswich	July 24	Chilmark	Aug. 18
White-rumped Sandpiper	Ipswich	July 24	Ipswich	May 22
Least Sand piper	Ipswich	May 19	Marlboro	May 15
Red-backed Sandpiper	Ipswich	May 19	Chilmark	Sept. 21
Semipalmated Sandpiper	Ipswich	May 19	Ipswich	May 22
Greater Yellow Legs	Ipswich	May 8	Ipswich	May 22
Sanderling	Ipswich	May 19	Ipswich	April 17
Yellow-legs	Ipswich	July 24	Cambridge	July 13
Solitary Sandpiper	Sudbury	May 15	Franklin Park	May 10
Willet	Ipswich	Aug. 28	.....	.....
Bartramian Sandpiper	Ipswich	Aug. 27	Edgartown	Aug. 18
Spotted Sandpiper	Middlesex Fells	May 2	Randolph	April 29
Hudsonian Curlew	Ipswich	July 31	Chilmark	Sept 8
Black-bellied Plover	Ipswich	May 8	Ipswich	May 22
Am. Golden Plover	Ipswich	Aug. 27	Chilmark	Sept. 10
Killdeer	Cambridge	June 26	Cambridge	June 28
Semipalmated Plover	Ipswich	May 19	Nahant	May 20
Piping Plover	Nantucket	Aug. 7	Ipswich	April 17
Ruddy Turnstone	Ipswich	May 19	Ipswich	May 22
Bob-white	Arboretum	May 28	Arboretum	Jan. 2
Ruffed Grouse	Ponkapog	April 10	Randolph	April 29
Mourning Dove	Ponkapog	April 10	Topsfield	April 21
Marsh Hawk	Ipswich	March 27	Edgartown	Jan. 1
Sharp-shinned Hawk	Middlesex Fells	Mar. 16	Aboretum	Jan. 2
Cooper's Hawk	Middlesex Fells	Mar. 13	Belmont	Mar. 11
Red-tailed Hawk	Vineyard Haven	April 18	Edgartown	Jan. 1
Red-shouldered Hawk	Ipswich	Feb. 22	Needham	April 10

Name of Species	List of Birds observed by Lidian E. Bridge, in Mass., from January 1, 1909, to January 1, 1910.		List of Birds observed by James L. Peters, in Mass., from January 1, 1909, to January 1, 1910.	
	Locality	Date	Locality	Date
Broad-winged Hawk	Greylock	June 19	Natick	April 19
Am. Rough-legged Hawk	Ipswich	Feb. 22	Edgartown	Jan. 1
Bald Eagle	Ipswich	Aug. 4	Edgartown	Aug. 13
Duck Hawk	Ipswich	Sept. 4	Chilmark	Sept. 9
Pigeon Hawk	Salem	April 24	Plum Island	May 8
American Sparrow Hawk	Nahant	Feb. 3	Cambridge	Jan. 5
American Osprey	Medford	Sept. 8	Needham	April 10
Short-eared Owl	Ispwich	Oct. 22	Mood Island	Mar. 6
Barred Owl	Middlesex Fells	Jan. 24	.....	.....
Screech Owl	Medford	July 23	Jamaica Plain	Mar. 14
Snowy Owl	Middlesex Fells	Dec. 11	.....	.....
Yellow-billed Cuckoo	Concord	May 12	Cambridge	May 14
Black-billed Cuckoo	Medford	May 11	Wayland	May 15
Belted Kingfisher	Cambridge	April 6	Cambridge	April 7
Hairy Woodpecker	Middlesex Fells	April 20	Stoneham	Mar. 6
Downy Woodpecker	Medford	Jan. 20	Edgartown	Jan. 1
Yellow-bellied Sapsucker	Medford	April 11	Franklin Park	April 11
Red-headed Woodpecker	Waverly	July 3	Belmont	June 28
Northern Flicker	Jamaica Plain	Jan. 1	Edgartown	Jan. 1
Whip-poor-will	Concord	June 2	Canton	May 9
Nighthawk	Sudbury	June 4	Cambridge	May 27
Chimney Swift	Ipswich	May 8	Cambridge	May 5
Ruby-thr't'd Hummingbird	Middlesex Fells	May 13	North Adams	May 29
Kingbird	Beverly	May 8	Plum Island	May 8
Crested Flycatcher	Sudbury	May 15	Jamaica Plain	May 16
Phœbe	Middlesex Fells	April 2	Franklin Park	April 5
Olive-sided Flycatcher	Greylock	June 19	Greylock	May 30
Wood Pewee	Middlesex Fells	May 22	Marlboro	May 15
Yellow-bellied Flycatcher	Middlesex Fells	May 30	Lanesboro	May 31
Alder Flycatcher	Greylock	June 19	Greylock	May 30
Least Flycatcher	Medford	May 10	Belmont	May 6
Horned Lark	Nahant	Jan. 7	Edgartown	Jan. 1
Prairie Horned Lark	Ipswich	July 24	Ipswich	Oct. 2
Blue Jay	Medford	Jan. 1	Edgartown	Jan. 1
American Crow	Medford	Jan. 1	Edgartown	Jan. 1
Bobolink	Concord	May 12	Cambridge	May 6
Cowbird	Waverly	April 16	Jamaica Plain	April 5
Red-winged Blackbird	Hingham	Mar. 17	Belmont	Feb. 24
Meadowlark	Weymonth	Jan. 29	Edgartown	Jan. 1
Orchard Oriole	Lanesboro	June 20	.....	.....
Baltimore Oriole	Medford	May 7	Cambridge	May 6
Rusty Blackbird	Ipswich	Mar. 27	Cambridge	Mar. 18
Bronzed Grackle	Boston	Feb. 25	Belmont	Mar. 16
Purple Flinch	Aboretum	Feb. 17	Jamaica Plain	Feb. 6
American Crossbill	Arboretum	Jan. 16	Arboretum	Jan. 31
White-winged Crossbill	Framingham	Feb. 12	Arboretum	Feb. 5
Redpoll	Medford	Jan. 10	Hyde Park	Jan. 31
American Goldfinch	Cambridge	Mar. 23	Arboretum	Jan. 10
Pine Siskin	Middlesex Fells	Jan. 3	Arboretum	Jan. 3
Snowflake	Nahant	Feb. 3	Edgartown	Jan. 1
Lapland Longspur	Ipswich	Oct. 16	Nahant	Feb. 1
Vesper Sparrow	Cambridge	April 7	Cambridge	April 7
Ipswich Sparrow	Ipswich	Feb. 22	Edgartown	Jan. 1
Savanna Sparrow	Cambridge	April 7	Edgartown	Jan. 1
Grasshopper Sparrow	Concord	May 17	Wayland	May 1

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	Locality	Date	Locality	Date
Henslow's Sparrow	Sudbury	May 29	Norwood	June 6
Sharp-tailed Sparrow	Ipswich	May 25	Ipswich	June 19
White-crowned Sparrow	Boston	May 14	Franklin Park	May 10
White-throated Sparrow	Jamaica Plain	Jan. 5	Jamaica Plain	Jan. 2
Tree Sparrow	Cohasset	Jan. 29	Edgartown	Jan. 1
Chipping Sparrow	Ponkapog	April 10	Ipswich	April 17.
Field Sparrow	Ponkapog	April 10	Franklin Park	April 10
Slate-colored Junco	Medford	Jan. 14	Arboretum	Jan. 2
Song Sparrow	Nahant	Jan. 7	Edgartown	Jan. 1
Lincoln's Sparrow	Concord	May 17	Cambridge	May 12
Swamp Sparrow	Cambridge	April 7	Cambridge	Mar. 4
Fox Sparrow	Cohasset	Mar. 17	Jamaica Plain	Jan. 17
Towhee	Medford	April 25	Public Garden	May 4
Rose-breasted Grosbeak	Concord	May 12	Brookline	May 11
Indigo Bunting	Cambridge	May 11	Sudbury	May 15
Scarlet Tanager	Sudbury	May 15	Wayland	May 15
Purple Martin	Cambridge	April 29	Cambridge	May 26
Cliff Swallow	Cambridge	April 29	Jamaica Plain	May 2
Barn Swallow	Cambridge	April 23	Needham	April 10
Tree Swallow	Nahant	April 5	Needham	April 10
Bank Swallow	Cambridge	April 29	Jamaica Plain	May 2
Cedar Waxwing	Cohasset	Jan. 29	Franklin Park	May 10
Northern Shrike	Medford	Jan. 19	Nahant	Jan. 16
Red-eyed Vireo	Boston	May 11	Arboretum	May 9
Warbling Vireo	Cambridge	May 11	Franklin Park	May 9
Yellow-throated Vireo	Concord	May 12	Arboretum	May 9
Blue-headed Vireo	Concord	May 1	Randolph	April 29
White-eyed Vireo	Medford	May 20	Braintree	June 11
Black and White Warbler	Concord	May 1	Arboretum	April 25
Golden-winged Warbler	Middlesex Fells	May 7	Cambridge	May 6
Nashville Warbler	Medford	May 10	Franklin Park	May 8
Tennessee Warbler	Middlesex Fells	May 13	Wayland	May 15
Northern Parula Warbler	Middlesex Fells	April 20	Cambridge	May 5
Yellow Warbler	Medford	May 6	Cambridge	May 5
Black-thr't'd Blue Warbler	Concord	May 12	Marlboro	May 15
Myrtle Warbler	Cohasset	Jan. 29	Aboretum	Jan. 16
Magnolia Warbler	Ipswich	May 8	Belmont	May 13
Chestnut-sided Warbler	Middlesex Fells	May 9	Aboretum	May 9
Bay-breasted Warbler	Medford	Oct. 3	Cambridge	May 25
Black-poll Warbler	Boston	May 11	Public Garden	May 11
Blackburnian Warbler	Ispwich	May 8	Belmont	May 13
Black-thr't'd Gr'n Warbler	Medford	May 6	Randolph	April 29
Pine Warbler	Ponkapog	April 10	Arlington	April 7
Palm Warbler	Medford	Oct. 6	West Roxbury	Oct. 3
Yellow Palm Warbler	Medford	April 20	Jamaica Plain	April 11
Prairie Warbler	Middlesex Fells	May 13	Cambridge	May 6
Ovenbird	Medford	May 6	Franklin Park	May 8
Water-Thrush	Concord	May 12	Waverly	May 7
Connecticut Warbler	Sudbury	Sept. 6	West Roxbury	Oct. 3
Mourning Warbler	.....	.....	Greylock	May 29
Northern Yellow-throat	Medford	May 6	.....	.....
Maryland Yellow-Throat	.....	.....	Cambridge	May 5
Yellow-breasted Chat	Medford	May 22	Braintree	June 11
Wilson's Warbler	Concord	May 12	Belmont	May 13
Canadian Warbler	Concord	May 24	Cambridge	May 25
American Redstart	Middlesex Fells	May 9	Canton	May 9

Name of Species	List of Birds observed by Lidian E. Bridge, in Mass., from January 1, 1909, to January 1, 1910.		List of Birds observed by James L. Peters, in Mass., from January 1, 1909, to January 1, 1910.	
	Locality	Date	Locality	Date
American Pipit	Ipswich	Sept. 29	Ipswich	Sept. 25
Catbird	Medford	May 6	Arboretum	Jan. 10
Brown Thrasher	Medford	May 6	Franklin Park	April 23
House Wren	Medford	May 6	Belmont	May 6
Winter Wren	Middlesex Fells	April 11	Jamaica Plain	April 11
Short-billed Marsh Wren	Canton	July 3	Wayland	May 13
Long-billed Marsh Wren	Cambridge	May 24	Cambridge	May 5
Brown Creeper	Brookline	Jan. 16	Marblehead	Feb. 8
White-breasted Nuthatch	Medford	Jan. 3	Jamaica Plain	Jan. 17
Red-breasted Nuthatch	Ipswich	Feb. 22	Arboretum	Jan. 2
Chickadee	Medford	Jan. 1	Edgartown	Jan. 1
Golden-crowned Kinglet	Medford	Jan. 6	Franklin Park	Jan. 24
Ruby-crowned Kinglet	Ponkapog	April 10	Jamaica Plain	April 11
Wood Thrush	Medford	May 7	Randolph	May 9
Wilson's Thrush	Middlesex Fells	May 7	Plum Island	May 8
Gray-cheeked Thrush	Concord	May 24	West Roxbury	Oct. 3
Bicknell's Thrush	Greylock	June 19	Greylock	May 29
Olive-backed Thrush	Sudbury	May 15	Marlboro	May 15
Hermit Thrush	Middlesex Fells	April 11	Arboretum	Jan. 2
American Robin	Cohasset	Jan. 29	Arboretum	Jan. 2
Bluebird	Medford	Feb. 22	Franklin Park	Mar. 13
Dovekie	Magnolia	Mar. 1	Beverly	Feb. 20
Glaucous Gull	Marblehead	Feb. 26	Marblehead	Feb. 8
Iceland gull	Marblehead	Dec. 15	Swampscot	Feb. 8
Kumlien's Gull	Boston	Jan. 5	Winthrop	Feb. 20
Caspian Tern	Ipswich	Oct. 2	Ipswich	Oct. 2
Black Tern	Nantucket	Aug. 7	West Tisbury	Aug. 18
Greater Shearwater	Nantucket Sound	Aug. 6	Nantucket Sd.	July 3
Sooty Shearwater	.....	.....	Boston Lightship	July 28
Baldpate	Jamaica Pond	Jan. 1	Jamaica Pond	Jan. 2
Shoveller	Middlesex Fells	Oct. 31	Middlesex Fells	Nov. 20
Canvasback	Jamaica Pond	Dec. 13	Brighton	Mar. 21
Ring-necked duck	Jamaica Pond	Oct. 29	Jamaica Pond	Oct. 29
Barrow's Golden-eye	Boston	Mar. 8	.....	.....
Snow Goose	Framingham	Nov. 19	.....	.....
Northern Phalarope	Ipswich	Sept. 29	Ipswich	May 22
Stilt Sandpiper	Ipswich	July 31	Chilmark	Aug. 18
Baird's Sandpiper	Ipswich	Sept. 29	.....	.....
Western Sandpiper	Nahant	Oct. 8	Chilmark	Sept. 8
Hudsonian Godwit	Ipswich	Nov. 12	.....	.....
Heath Hen	W. Tisbury	April 18	Edgartown	Jan. 1
Ring-neck Pheasant	Ipswich	Feb. 22	Cambridge	Feb. 9
Yellow-headed Blackbird	.....	.....	Chilmark	Aug. 27
Purple Grackle	Vineyard Haven	April 17	Wood's Hole	June 30
Evening Grosbeak	Waltham	Nov. 6	.....	.....
Nelson's Sparrow	Ipswich	Oct. 2	Plum Island	Oct. 2
Acadian Sharp-tailed Spar.	Cohasset	May 31	Plum Island	Oct. 2
Cardinal	Ipswich	Feb. 22	Ipswich	Feb. 27
Rough-winged Swallow	.....	.....	Lanesboro	May 31
Philadelphia Vireo	.....	.....	North Adams	May 29
Blue-winged Warbler	Sudbury	May 29	Sudbury	May 29
Cape May Warbler	.....	.....	West Roxbury	Oct. 3
Orange-crowned Warbler	Medford	Oct. 3	.....	.....
Mockingbird	.....	.....	Franklin Park	Feb. 22
Carolina Wren	Ipswich	Feb. 22	Ipswich	Feb. 27

The Migration of North American Sparrows

SIXTH PAPER

Compiled by Professor W. W. Cooke, Chiefly from Data in the Biological Survey
With Drawings by Louis Agassiz Fuertes

(See frontispiece)

ARKANSAS GOLDFINCH

The Arkansas Goldfinch is the latest migrant to arrive in northern Colorado, reaching there in late May, a month after the young are already out of the nest at the same latitude in California. On the Pacific coast, it winters north to central California; while, in the eastern part of its range, it is rarely found in winter north of the Rio Grande valley.

The average date of arrival at Kerrville, Texas, is April 29, earliest, April 18, 1904; Fort Davis, Texas, April 18, 1890; Tucson, Ariz., March 24, 1902; Chiricahua Mountains, Ariz., March 30, 1881; Camp Verde, Ariz., April 2, 1892; Colorado Springs, Colo., average, May 26, earliest, May 18, 1909; Denver, Colo., May 17, 1903; Cheyenne, Wyo., May 26, 1889; Baird, Cal., March 1, 1886.

The last have been noted at Denver, Colo., September 27, 1908; Beulah, Colo., September 28, 1905; Espanola, N. M., October 24, 1904; Silver City, N. M., November 11, 1906; and at Calabasas, Ariz., October 30, 1889.

LAWRENCE'S GOLDFINCH

The Lawrence Goldfinch is resident in southern California, and a few have been noted in winter as far north as Marysville, almost to the northern limit of the summer range. The earliest northward migrations begin in late March, and migratory movements continue until early May.

During the winter, a few move eastward to southern Arizona, and were noted January 20, 1876, even as far east as Fort Bayard, N. M.

Notes on the Plumage of North American Sparrows

FIFTH PAPER

By FRANK M. CHAPMAN

(See frontispiece)

Arkansas Goldfinch (Figs. 1–3). This species presents marked variations in plumage which the materials at my command do not satisfactorily explain. Males in first winter plumage resemble the female (Fig. 3), but have traces of a black cap and no white in the tail. The prenuptial molt appears to be complete in both the immature and the adult birds, and the former now usually acquires the plumage with a black mottled back shown in Fig. 3. It is probable that the black, or essentially black, back is not acquired until the second prenuptial molt, and it is thereafter retained; although, as has just been said, the adult with the immature, has a complete spring as well as fall molt.

The Green-backed Goldfinch (*Astragalinus psaltria hesperophilus*, Fig. 4), the western form of this species has the back plain olive-green, and between this and the black-backed race there is a somewhat confusing series of intergrades, resembling, when adult, immature specimens of the black-backed bird (*Astragalinus psaltria psaltria*).

Lawrence's Goldfinch (Figs. 5, 6). Lawrence's Goldfinch is almost confined to California during the nesting-season, and, like many birds with a limited range, its characters are sharply defined, and it has no near allies with which, for purposes of identification, comparison is necessary. The juvenal plumage of both sexes resembles that of the adult female, but the breast is sooty gray, with no, or but the faintest, suggestion of yellow; while young males may be known by the greater amount of white in the tail.

At the postjuvenal molt, the tail-feathers, wing-quills, and primary coverts are retained, while apparently the rest of the wing-feathers and the body plumage is molted. The bird now passes into first winter plumage, which resembles that of the adult, in summer, but in the male the nape and back are decidedly browner, but with more or less greenish yellow concealed at the bases of the feathers, and the hind portion of the black cap is tipped with brownish; young and adults are now practically indistinguishable.

There appears to be no spring molt, and the gray, greenish yellow back of the breeding male is acquired by wear and fading.

The seasonal variations of the female are less pronounced, and there is little difference in color between summer and winter specimens.

Notes from Field and Study

Bird's-eye View of a Paris Park

If you are in Paris, do not fail to see the man who feeds the birds in the Garden of the Tuilleries. Any day you will find him there, the center of a little knot of interested spectators, talking volubly at a crowd of House Sparrows which throng about his feet, and even flutter into the air to catch the crumbs he tosses to them. With the Sparrows are generally a few great Wood Pigeons, which perch on his head and shoulders. He has gained the confidence of the birds in a very wonderful manner. But feeding the Sparrows and Pigeons is general in the gardens, and these birds are trustful of any one who brings them crumbs.

On this side of the Atlantic, we think of the House Sparrow as but a noisy intruder. In Paris he has the rights of long possession. The Pigeons which share the parks with him are not the domestic bird, but another larger species, the Wood Pigeon. They are more solitary and weaker flyers than the domestic Pigeon, which also occurs in small flocks in the city, but is much less in evidence.

When the sun comes out after summer showers and the air is full of drifting bits of white down from the poplar trees, like flakes of snow against the blue sky or contrasting dark cloud, the Garden of the Tuilleries is indeed beautiful. A Starling is walking hurriedly about in one of the plots of grass, and, as the eye follows it from there up to the roof of the Louvre, one sees the white rumps of two or three Martins, which, except for this striking mark, much resemble Tree Swallows. A couple of Blackbirds, suggesting the American Robin, but weaker flyers, have come from the trees and shrubbery into the open. Theirs is the pleasant, unambitious bird song frequently heard from the trees in the Garden. The air is cut by shooting Swifts, like our familiar Chimney Swift, but larger, and their forked tails look as foreign as their harsh cry sounds.—J. T. Nichols, *New York City.*

The Bobolink in Montana

In considering the westward extension of the Bobolink's range, and the western states in which it has been observed,

WOOD PIGEONS IN A PARIS PARK

Montana is to be included, though the number that reaches this section of country is apparently small.

In the summer of 1906, I saw them for the first time in this vicinity. A small flock spent the summer in a meadow near my home, and I saw the birds and heard their song frequently. Again in 1907 and 1908, a small number frequented the same meadow.

Last summer (1909), the size of the flock was apparently much reduced, and I did not see any of the birds, though several times I heard the familiar *Bobolincan, wadolincan, winterseeble, see, see, see!* Assuming that migratory birds usually return to the locality where their life began, some casualty had doubtless overtaken some members of the flock. Perhaps they had succumbed to the hardships of the long journey to and from their winter home in South America; or, perhaps, in the guise of Rice-birds or Butterbirds, they had figured on the table of some Southern epicure.

My home is in the Gallatin valley, in the southern part of the state of Montana, east of the main range of the Rockies. But the birds have also been recorded on the west side of the mountains, near Flathead Lake by the ornithologist of the University of Montana.

If all Bobolinks travel by the Florida route in migrating to and from the United States, these far western pilots of the air have to cross the Rocky Mountains twice each year.—Nelson Lundwall, *Bozemon, Montana.*

Lunch-counter Notes

One of the most interesting features of keeping a well-supplied lunch-counter for my birds is seeing, some day, a new bird, perhaps an entire stranger. One pair of Tufted Titmice came together all one winter. Their regular range is south of us.

Occasionally a Cardinal will be seen, and once in a while will come to the window. In February, last year, a flock of Redpolls came and visited for some weeks. Sometimes a Red-breasted Nuthatch will stay for the winter. The Red-bellied Woodpecker also favors us some years.

A flock of Purple Finches is staying here this winter, apparently because they appreciate our efforts in their behalf. They began coming one or two at a time, now there will be four or five at the counter and as many more waiting and flying about. There are now three Bronzed Grackles that come (since January 11), and shell seeds, and eat cracked corn, as happy and contented as if they did not regret not going South this winter.

This has been a cold winter,—the ground covered with snow from eight to twenty inches in depth,—and the birds have been more numerous than usual at my counter.

My regular winter birds are the Hairy and Downy Woodpeckers, White-breasted Nuthatches, Chickadees, Juncos, with Blue Jays and English Sparrows under protest. In the spring and summer, Robins, Catbirds, Wrens, Vireos, Orioles, Rose-breasted Grosbeaks, as also some of the winter birds, with their young.—Nettie I. Fairbanks, *Mt. Vernon, Linn Co., Iowa.*

Pied-billed Grebe Nesting in Connecticut

On a pond close to "Bald Hill" in Wilton township, Connecticut, on July 21, 1909, I saw at least five Pied-billed Grebes, all of which appeared to be full-grown. One of them was feeding four young Grebes, that did not look over five or six inches long, and must have been hatched at the pond. On the same day, I saw a female Wood Duck, followed by one downy young, swim from the edge of the pond out into a partly submerged clump of bushes and trees. There was considerable commotion in these bushes, and, among the other notes, was a distinct *quacking.* At the same pond, on August 7, I saw a half-grown Duck, which I believe was a Black Duck, swim out to the bushes, and heard more quacking. (I have added this rather indefinite note on the Black Duck, not as a record, but as a suggestion as to where the Black Duck could prob-

ably be found breeding within fifty miles of New York.)

On August 6, 1909, I observed a female Black-throated Green Warbler feeding a very young bird (down still clinging to head, and no tail-feathers started) in a grove of Hemlocks about a mile from Wilton station.—Norman deW. Betts, *Boulder, Col.*

Tax the Cat

The excellent suggestion of Dr. Emily G. Hunt, of Pasadena, to tax the cat, should be followed up. The plan would furnish a goodly sum of money to be divided among politicians of hundreds of towns and villages. Bird-lovers everywhere would be pleased, and, last of all, an incalculable amount of good would follow for our agricultural interests, which depend so largely upon the good deeds of birds. If a nuisance cannot be eaten, tax it. These two ways are very effective. Please do not consider that I am not a friend of the cat. We always have some darlings about the house. Last year there were two Angoras, and a large gray Maltese, all famous ratters. The Maltese brought sixteen dead rats to the house in the country in the one month in which a record was kept.

When the supply of rats and mice ran low, the enterprising cats became hunters in the woods about the house. Having been petted for bringing in the earlier game, they continued to bring in their quarry of all sorts. This consisted chiefly of rabbits, red and gray squirrels, chipmunks, and field-mice, all of which were abundant and destructive.

I have seen all three cats leave the house at sundown, and return with as many rabbits in a few minutes. They killed comparatively few birds, and were intelligent enough to leave little chickens alone. Nevertheless, the birds that they did kill were mostly our favorites about the house, and, if the supply of rodents had diminished much, very many birds would no doubt have been killed daily. If it is not wise to put a tax of one dollar per year upon all male cats in America, put a tax of three dollars per year at least upon all female cats. That would soon limit production.—Robert T. Morris, 616 *Madison Avenue, N. Y.*

An Albino Blue Jay

This Albino Jay, with a large number of other Jays, was fed, the past two winters, by a bird friend of mine. A party of hunters, to kill anything in sight, shot

AN ALBINO BLUE JAY

him within gun-shot of his feeding-ground. The bird's throat and entire underparts are white; the bill, legs and feet very light horn-color; the crest and neck white; back white, excepting middle, which shows a tinge of blue; primaries white; secondaries blue, barred with black and tipped with white; the three middle tail-feathers white; the others blue, barred with black and tipped an inch or more with white.—Henry W. Osgood, *Pittsfield, Mass.*

Book News and Reviews

A History of Birds. By W. P. Pycraft, Zoölogical Department, British Museum. Methuen & Co., 30 Essex Street, W. C. London, 1910. 8vo., xxxi+458 pages; 37 plates, 50 text cuts. Price 10 shillings, sixpence.

The reviewer who would prepare an adequate notice of this volume has before him a task of no small proportions. Correspondingly great, therefore, has been Mr. Pycraft's effort to present in one volume a summary of what is significant in the history of bird-life. Furthermore, he may claim both the delights and the difficulties of the pioneer, for we recall no other bird book of this kind. It is true, we have had books on migration, nesting, song, form and function, molt, home-life, etc., while Darwin, Wallace, and other philosophic naturalists, have made extended use of birds to illustrate various theories in evolution. But Mr. Pycraft alone has attempted to present in one volume a detailed picture of the bird, in relation to its environment, and no one unfamiliar with the mass and character of the literature to be digested in preparation for such a work can realize the magnitude of the undertaking. Let it be said at once that Mr. Pycraft has been surprisingly successful. It is not to be expected that the work should throughout be of equal merit. The specialist in distribution, migration, and nest-life, for example, could find room for improvement in the chapters on these subjects, just as Mr. Pycraft would find ground for criticism in chapters which these specialists might prepare on his department of structural adaptations. It is, however, both natural and, in this case, certainly desirable, that an author should give greatest attention to those phases of a subject in which he is especially interested, and of which he has a knowledge based on personal research.

We wish it were possible to review this important work in detail, for it is an eloquent exposition of the kind of ornithology which every one who has at heart the advancement of the science of birds will wish to see developed; but at present we can only indicate its contents by appending a list of chapter headings: Chapters I–III. Introductory and Phylogenetic. The general characters of birds and their position in the animal kindgom. IV. Œcological Distribution and Haunts. V. Seasonal Life. VI. Migration. VII. Relations to Animate Environment. VIII. Peculiar Inter-relations (with other forms of life). IX. Phases of Social Life. X. The Relations of the Sexes. XI. Reproduction—Nidification. XII. Concerning Eggs. XIII, XIV. Care of Offspring. XV. Nesting Birds and What They Teach. XVI. The Life-History of Birds—An Œcological Summary. XVII. Variation: Continuous and Discontinuous. XVIII. Acquired Characters. XIX. Natural Selection as Applied to Birds. XX. Artificial Selection. XXI. Sexual Selection. XXII. Isolation. XXIII–XXV. Structural and Functional Adaptations. XXVI. Convergent Evolution and Parallel Development. The breadth, importance, and unusual character of Mr. Pycraft's book is clearly evident by this mere statement of the field it covers, and we very cordially commend it to every one interested in birds in nature. They will unquestionably find in it much that is new to them, and, quite as unquestionably, it will give them a new conception of the possibilities of bird study.—F. M. C.

Birds of South Carolina. By Arthur Trezevant Wayne, Honorary Curator of Birds in the Charleston Museum. With an Introduction by the Editor. Charleston, S. C., 1910. 8vo., xxi+254 pages, 1 map.

Since 1883, Mr. Wayne has devoted himself almost continuously to field work among the birds of the coast of South Carolina, and this volume is based largely on his labors in that region. In order, however, that the book might contain a complete list of South

Carolina birds, we have, in addition to the 309 species recorded from the coast region, a further list of 28 species from the interior of the state, making 337 the total for South Carolina.

Possibly no other person in this country —or for that matter, any country—has given more time to collecting and observing the bird-life of a comparatively limited area during the past quarter of a century than has Mr. Wayne. Furthermore, he has been exceptionally well situated to add to our knowledge of birds. Not only is his region possessed of unusual historic and faunal interest for the student of birds, but during the period under consideration he has been almost the only worker in it. His book, therefore, is an exceptionally welcome addition to the literature of birds. Without speculating on the results which might have been achieved by twenty-five years' definitely directed attention to biographical problems, rather than to collecting, recording and incidental observing, we have here an authoritative exposition of the status of bird-life on the coast of South Carolina, by a person whose experience has thoroughly qualified him to present it. The annotations average about two-thirds of a page for each species, and include remarks on numerical abundance, haunts, times of occurrence, breeding-dates, size and color of the eggs, number of broods, and various comments usually to the point and of value. Mr. Wayne has a keen scent for the errors of other authors who directly or indirectly have written of the birds of what may in truth be called his region, and devotes no small part of his space to their correction. In view of his generally critical and discriminating attitude, it is, therefore, surprising to find that he endorses the theory that the extinction of the Passenger Pigeon (*Ectopistes*) is in part due to its having been "drowned in multitudes in the Gulf of Mexico during migrations."

Dr. Rea gives an excellent historical introduction, and there is a useful bibliography, forming in all the most noteworthy book on birds which has been published in any Austroriparian state.—F. M. C.

The Methods and Uses of a Research Museum. By Joseph Grinnell. Popular Science Monthly, August, 1910, 163-169.

Developed on the lines laid down by Mr. Grinnell in the present paper, it is clear that the Museum of Vertebrate Zoölogy of the University of California, of which he is Director, will become a model institution. He very properly, in our opinion, selects for his special field the Pacific Coast. Here, as he says, he has a practically inexhaustible region, one, too, of exceptional interest, which he is more favorably situated to work than any other place, or than any other person not resident in it.

Not only are specimens collected, but information in regard to them secured and recorded with camera and pen, and these data are so filed that they may be as accessible as the specimens themselves. The Museum, then, will become a "repository of facts," and eventually will have a collection of the batrachians, reptiles, birds, and mammals of the area it covers so labeled that it will be an adequate representation of the conditions which existed when the collections were made.—F. M. C.

Abridged Check-List of North American Birds. New York City. American Ornithologists' Union, 1910. $5\frac{3}{4} \times 3\frac{1}{4}$ inches, 77 printed—77 blank pages.

This is a very convenient pocket list of the scientific and common names of North American birds, abridged from the third edition of the 'Check-List' of the American Ornithologists' Union, which was reviewed in the last number of Bird-Lore. Every printed page is faced by a blank page for the reception of notes or comments. The list will, therefore, be of use in the study or in the field, or it may be employed for labeling. It can be purchased for twenty-five cents, postpaid, from J. Dwight, Jr., Treas., American Ornithologists' Union, American Museum of Natural History, New York City.—F. M. C.

Bird-Lore

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Devoted to the Study and Protection of Birds
OFFICIAL ORGAN OF THE AUDUBON SOCIETIES
Edited by FRANK M. CHAPMAN
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Bird-Lore's Motto:
A Bird in the Bush is Worth Two in the Hand

THE twenty-eighth Congress of the American Ornithologists' Union will be held in Washington, D. C., November 15–17, 1910. Application for Associate Membership in the Union should be made to its treasurer, Dr. J. Dwight, Jr., at the American Museum of Natural History, New York City. Such applications are acted on at the business meeting of the Union held November 14, and all successful candidates are entitled to take part in the subsequent proceedings of the Union.

THE endorsement of the National Conservation Association, at its Congress held in St. Paul, September 5–8, of the plan to secure Federal law for migratory birds gives fresh hope that eventually such a measure may be passed by Congress. We may even venture to look forward to the day of international legislation when the bird that nests in Canada, and passes through the United States to its winter home in Mexico, or beyond, may, at all times, be the subject of laws based on a thorough knowledge of its range, its periods of migration, and its nesting date.

BIRD-LORE'S comments (May-June, 1910, pp. 120, 121) on 'The Condor's' application of abbreviated spelling to the common names of birds are interpreted by the Editor of that excellent magazine (July-August, 1910, p. 134) as an accusation of an attempt on his part to "originate" a "new fad," and we are therefore declared to exhibit "astonishing ignorance" of a "wide-spred," "progressiv" movement.

As a matter of fact, we really had heard of simplified spelling before it was adopted by 'The Condor;' indeed, for some years we have been the far from appreciative recipients of the circulars of the Simplified Spelling Board, and we even recall the indignation aroused by a certain prominent citizen who, ill-advised, or not advised at all, attempted to give Federal sanction to this assault on the orthography of the English language. While, therefore, we must deny being so astonishingly ignorant as to have believed that 'The Condor' was the originator of what Dr. Palmer has called "bob-tailed" spelling, we believe that we can accuse it of being the first scientific journal to apply this spelling to the names of animals. It is no concern of ours if the Editor of 'The Condor' wishes to mar his pages with such peculiar verbal forms as "peekt," "bilt," "thoroly," "gard," "thru," etc., but when, in his zeal for spelling reform, he alters the names of birds, for the spelling of which there is higher authority than the Simplified Spelling Board, and gives us, for example, "Olive-backt Thrush," "Ruft Grouse," and "Fesant," we feel as though he had taken unwarranted liberty with the spelling of the names of friends, and we protest against these disguising changes, just as the Editor of 'The Condor' would protest if we spelled his name Josef Grinel.

BIRD-LORE'S stand on the "Cat question" is criticised by a number of its readers, who maintain that "cat-lovers, as well as bird-lovers, have rights." Of course they have, and it is our earnest hope that their rights may be so clearly defined by proper laws that no court in the land can refuse to grant them. The dog, through its owner, has a legal status, and we fail to see why the cat, through its owner, should not be equally recognized by our legislators. But ownerless dogs are vagrants, and are so treated by societies for the prevention of cruelty to animals; and we ask only that ownerles cats also be taken in charge by those having authority.

The Audubon Societies

SCHOOL DEPARTMENT

Edited by MABEL OSGOOD WRIGHT

Address all communications to the Editor of the School Department, National Association of Audubon Societies, 141 Broadway, New York City

Some Pros and Cons of Winter Feeding

WHEN one begins to feed birds in winter, the single object of keeping them alive is the keynote that soon passes on to a harmony of results—the presence of birds in added numbers, the consequent cheerfulness of the outdoor winter scene, and then the pleasure of making a few real friends among the more fearless birds.

Presently there comes another aspect of the matter; the undesirability of feeding three of the four chief enemies of the very bird one is striving to protect—the red squirrel, the rat, and the cat; the other one of the quartet, the snake, being rather unlikely to be attracted by bird food. Not only must the feeding-places be arranged so as to keep the animals away for the birds' sake, but also for the sake of the adjoining householders.

For several years I had concentrated my feeding efforts upon two lunch-counters. That for winter was on a shelf on the old apple trees, while my summer station was on a stone wall between some woods and the garden-house,—so placed for the satisfaction of seeing how many of the insect-eating birds, like the Wood Thrush, Catbird, Thrasher, etc., I could attract, even in the height of the season of plenty. For a time all worked well, then the food on the wall table began to disappear with astonishing rapidity, taking the visible numbers of lunchers into account. Finally, one morning, I discovered that a horde of rats were lodging not only in the convenient chinks of the rough stone wall, but were making runs to the foundation of a wood tool-house close by, where rats had never before been seen. Then started a crusade of trapping and poisoning by putting strychnine in clams on the half-shell, which could be pushed into the wall out of harm's way. But, in spite of success in the trapping, the password of "good eating" seemed to have spread through the rat kingdom, and the procession now seems endless.

To get the shelf out of rat reach, it was mounted upon four heavy long-necked glass bottles, up which the rats could not climb. For a few days all went well, then the food vanished as before. This time it was quickly traced to a broken and over-hanging branch, from which the red squirrels swung down and leaped back easily. The tray was moved to a treeless space, but the birds did not like it; and after a week's time the counter was overturned and the bottles broken by a large brindled tramp cat, that was tall enough to stand on the fence and rest her paws on the tray, while feeding.

My next move will be to have a permanent structure with a two-and-a-half foot glazed drain tile for legs, cemented to the wall. This shall have a roof for protection from sun and wind, and be out of reach of swaying branches. The winter shelf on the apple tree had a longer period of usefulness; but, late last spring, I found to my disgust that a pair of rats not only were able to climb up the slanting trunk, that leans after the manner of many apple-trees, but were making a home in an abandoned Bluebird's hole directly above the food-shelf!

This rash pair were promptly executed, and a broad zinc petticoat now encircles the tree trunk, much to the anger of the rodents. The moral of this all is: 1. To watch out and beware of feeding the destroyers of the birds that you wish to protect. 2. Choose trees that stand alone either for bird-houses or lunch-counter; protect the trunks with metal bands, as you would the legs of a granary; and do not forget that the sight and scent of food is as attractive to vermin as to the song-bird, so that, as usual, the full responsibility of open-eyed protection lies with us who, having eaten of the tree of knowledge, must not shirk.

M. O. W.

ANNOUNCEMENT TO SOUTHERN TEACHERS

Through the generosity of Mrs. Russell Sage, the National Association of Audubon Societies is at present able to make the following offer of assistance to those teachers in the southern states who are interested in giving instruction to pupils on the subject of bird study.

JUNIOR AUDUBON CLASSES

To form a Junior Audubon Class for bird study, a teacher should explain to the pupils of her grade (and others if desired) that their object will be to learn all they can about the wild birds, and that every one who becomes a member will be expected to be kind to the birds and protect them. Each pupil will be required to pay a fee of 10 cents each year. When ten or more have paid their fees, the teacher will send their money to the Southern Office of the Association, Greensboro, N. C., and give the name of the Audubon Class and her own name and address. The Association will then forward to the teacher for each pupil whose fee has been paid the beautiful Mockingbird "Audubon Button," and a set of ten colored pictures, together with outline drawings and leaflets. The teacher will also receive free of cost the magazine BIRD-LORE, which contains many suggestions for teachers. It will be expected that the teacher give at least one lesson a month on the subject of birds, for which purpose she will find the leaflets of great value as a basis for the lessons.

If the teacher wishes, the Audubon Class may have a regular organization, and a pupil can preside upon the occasions when the class is discussing a lesson.

For details in regard to methods of organization and subjects for study, address T. Gilbert Pearson, Secretary, Greensboro, N. C.

THE ROBIN

By T. GILBERT PEARSON

The National Association of Audubon Societies
EDUCATIONAL LEAFLET NO. 46

No bird holds so prominent a place in the minds of the American people as the Robin. It is distinctively a companion of man, and wherever his hand has cleared the wilderness the Robin has followed. From Mexico to the Yukon the traveler meets it, and the residents will tell him of its coming and going. It has passed into the literature of the country, and one reads of it in the books of science and of romance. Poets weave its image into their witchery of rhyme, lovers fondly spy upon its wooing, and by the fireside of every household children lisp its name when stories are told in the twilight.

In Spring

Heedless indeed is the ear that does not hearken when the Robin sings. Loud and clear it calls at dawn, and sweet are the childhood memories it brings of fresh green fields swept by gentle winds and apple blossoms filled with dew.

One spring, a pair built their nest on the limb of a balsam standing beside a much-used walk near my home. In gathering the material for the nest, the greatest care was exercised to work at those hours when there was the least chance of being observed. Thus, the greater part was done in the early morning when few people were astir. Perhaps one reason for this was that the blades of dead grass, twigs, and other nesting material, were then damp and pliable from the dews of night, and were much more easily woven into position than after they had become dry and brittle. Only during the last few days of construction did I detect the birds working in the afternoon. The mud for their nest was found by a little pool at the end of a leaky horse-trough.

On April 18 the nest appeared to be completed, for no more materials were brought. On the 22d the female began sitting. I could see her tail extending over one side of the nest, her bill pointing upward at a sharp angle from the other. She flew off the first day when the half hundred boys who frequented the walk came along on their way to dinner. But she soon became accustomed to them, and would sit quietly, although numerous heads passed within five or six feet. No one disturbed the nest with its four blue eggs, and on May 6 I saw her feeding the young. Four days after this event, I noticed the heads of the younglings bobbing above the rim of the nest. They were gaining strength rapidly.

The morning of May 17 was cool, and a drizzling rain had been falling for some hours. This dreary morning happened to come on the day when the young Robins desired to leave the nest. Rain could neither dampen their desire nor check their plans. At seven o'clock, three of them were found sitting

ROBIN

Order — PASSERES
Genus — PLANESTICUS
Family — TURDIDÆ
Species — MIGRATORIUS

motionless, a foot or more from the nest, on the limb which held it. Each had gathered itself into as small a space as possible, and, with head drawn close, seemed waiting for something to happen. But their eyes were bright, as they looked out over the vast expanse of the lawn before them—that trackless region, to explore which they dared not yet trust their strength. The fourth one could not be found. The next day two others disappeared, after spending some hours of joyous, happy life on the grass and in the shrubbery. I strongly suspected the Academy cat knew where they had gone.

Knowing that the family would never return to the nest, I removed it from the limb, for I wanted to see how the wonderful structure was put together. In its building, a framework of slender balsam twigs had first been used. There were sixty-three of these, some of which were as much as a foot in length. Intertwined with these were twenty fragments of weed stalks and grass stems. The yellow clay cup, which came next inside, varied in thickness from a quarter of an inch at the rim to an inch at the bottom. Grass worked in with the clay while it was yet soft aided in holding it together, and now, last of all, came the smooth, dry carpet of fine grass. The whole structure measured eight inches across the top; inside it was three inches in width, and one and a half deep. It was one of those wonderful objects which is made for a purpose, and it had served that purpose well.

In Winter

It is good to watch the Robins when a touch of autumn is in the air and the *wander-lust* is strong upon them. On rapidly beating wings they drive swiftly across the fields, or pause on the topmost spray of a roadside tree and look eagerly away to the southward. Their calls are sharp and inquisitive. Clearly, the unsuppressed excitement of starting on a long journey pervades their nature. In a little while they will be gone.

Later you may find them in their winter home, feeding on the black gum trees in a Carolina swamp, the berries of the China tree in Georgia, or the fruit of the cabbage palmetto in Florida. But their whole nature seems to have suffered change. No cheerful notes of song await you, no gathering of food from the grass on the lawn, no drinking from the cup on the window-sill, none of the confiding intimacies so dear to their friends at the North. We see them in flocks, wild and suspicious. Often they gather to feed on the great pine barrens far from the abode of man. They grow fat from much eating, and are hunted for the table. Recently I found strings of them in the markets of Raleigh, and was told they were worth sixty cents a dozen, the highest price I had ever been asked for them.

Robins in winter sometimes congregate by thousands to roost at a favorite spot, and here the hunters often come to take them, in the manner Audubon tells us people took the Wild Pigeons during the last century. Stories of their killing creep into the public press, and over their coffee men marvel at the slaughter of birds that goes on, sometimes, in their immediate neighborhood.

Here is an authentic account of the raiding of one such roost, given the writer by Dr. P. P. Claxton, of the University of Tennessee. He was familiar with many of the details, and will vouch for the truthfulness of the facts here set forth. He says: "The roost to which I refer was situated in what is locally known as a 'cedar glade' near Fosterville, Bedford County, Tennessee. This is a great cedar country, and Robins used to come in immense numbers during the winter months, to feed on the berries. By the middle of a winter's afternoon, the birds would begin coming by our house in enormous flocks, which would follow one another like great waves moving on in the direction of the roost. They would continue to pass until night. We lived fifteen miles from the roost, and it was a matter of common observation that the birds came in this manner from all quarters.

A Tennessee Robin Roost

"The spot which the roost occupied was not unlike numerous others that might have been selected. The trees grew to a height of from five to thirty feet, and for a mile square were literally loaded at night with Robins. Hunting them while they roosted was a favorite sport. A man would climb a cedar tree with a torch, while his companions with poles and clubs would disturb the sleeping hundreds on the adjacent trees. Blinded by the light, the suddenly awakened birds flew to the torch bearer, who, as he seized each bird, would quickly pull off its head, and drop it into a sack suspended from his shoulder.

"The capture of three or four hundred birds was an ordinary night's work. Men and boys would come in wagons from all the adjoining counties and camp near the roost for the purpose of killing Robins. Many times, one hundred or more hunters with torches and clubs would be at work in a single night. For three years this tremendous slaughter continued in winter, and then the survivors deserted the roost."

These are almost the identical methods employed in killing untold numbers of Wild Pigeons, which is today probably an extinct bird in America.

His Food

That protection should be extended to the Robin because of its economic value as a destroyer of injurious insects many observers unite in stating, despite the objection sometimes raised to his fondness for small fruits. The United States Department of Agriculture, which looks so carefully into various subjects of vital importance to our country, sent Mr. W. L. McAtee, a brilliant naturalist, to Louisiana, the past winter, and he made many observations on the feeding habits of these birds. Under date of February 20, 1910, he reported:

"I collected twelve Robins near here yesterday, and got the following results from an examination of their gizzards: Eight had eaten nothing but insects, the other four had taken respectively 95, 80, 65 and 0 per cent of insects and other invertebrates. The insects eaten included grasshoppers, (*Tettix*), bugs (*Pentatomidæ*), beetles (*Chrysomelidæ*, weevils, bill bugs and *carabids*), beetle larvæ (wire worms and others), and caterpillars, including cut worms. Another day I collected three other Robins which had eaten insects, including

larvæ of crane flies (*Tipulidæ*), which are sometimes known as leather-jackets. The larvæ feed on the roots of grasses, including grain crops and other plants, and are sometimes quite injurious. Each of the three birds had eaten one or more specimens of a leaf beetle (*Myochrous denticollis*), a plant feeder, and injurious. On a basis of the eighteen stomachs I have examined this month, I consider the Robin to be essentially an insectivorous bird in Louisiana in February. I notice that great numbers of the Robins feed in open grassy fields, where their diet must consist largely of animal matter, as the birds do not eat weed seeds. They are shot here from morning to night; shots are heard in every direction. Each hunter kills from twenty-five to fifty per day."

Robin Protection

The National Association of Audubon Societies has been working to secure the passage of laws better calculated to protect the Robin, and its efforts are being greatly strengthened by the financial aid rendered by Mrs. Russell Sage. We believe that in every state of the Union this bird should be placed on the list of protected species, and never allowed to be killed as game. We hold further that, for the enforcement of these and other bird and game laws, every state should establish an efficient non-political game commission, and a warden force supplied with sufficient funds to do its work effectively. It is simply a crime for any Commonwealth to permit the indiscriminate killing of valuable insect-eating birds to continue in this age of enlightenment.

Largely as a result of the effects of the Audubon workers, only a few states are left wherein the Robin is not protected. These are as follows:

Florida.—Robins may be killed at any time.
Louisiana.—May be killed from November 15 to March 15.
Maryland.—May be killed in Calvert County at any time.
May be killed in Harford County from November 1 to December 2.
May be killed in Prince George County from November 1 to April 2.
May be killed in Queene Ann County from October 1 to March 1.
Mississippi.—May be killed from September 1 to March 1.
North Carolina.—May be killed from November 1 to March 1. (Seasons slightly different in certain counties.)
Tennessee.—May be killed from October 1 to April 15.
Virginia.—May be killed from February 15 to April 1.

Classification and Description

The Robin (*Planesticus migratorius*) belongs to the Thrush family (*Turdidæ*). It ranges throughout North America from the southern end of the Mexican tableland northward to the limit of trees in Labrador and Alaska. In this great area it is represented by three geographical races: the Eastern Robin (*Planesticus migratorius migratorius*), the male of which is shown in the accompanying plate; the Western Robin (*P. M. propinqua*), which is like the Eastern bird, but has little or no white in the tail and no black markings on the back; and the Southern Robin (*P. M. achrusterus*), which, in the mountains, breed as far south as Northern Georgia, and is smaller and paler than the northern bird.

The Audubon Societies

EXECUTIVE DEPARTMENT

Edited by WILLIAM DUTCHER

Address all correspondence, and send all remittances for dues and contributions to the National Association of Audubon Societies, 141 Broadway, New York City

Annual Meeting of the National Association

The regular annual meeting of the National Association will be held October 25, at the American Museum of National History, West 77th Street, New York City. The notices called for by the By-Laws will be mailed to all members of the Association within the statutory time limit.

It is earnestly hoped that all members will keep the above date free from other engagements, so they may attend the annual meeting of the Association.

International Humane Conference

The first American International Humane Conference will be held in the United States National Museum at Washington, D. C., October 10–15, 1910. All persons interested in the prevention of cruelty will be welcome to attend. Further details may be obtained from the American Humane Association at Albany, N. Y., under the auspices of which the Conference will be held.

A New Committee

The need for a very large increase in the membership of the Association is so urgent that the President has appointed a Committee to take the matter in charge. The members are: William W. Grant, Chairman; T. Gilbert Pearson, Louis Agassiz Fuertes, Clinton G. Abbott.

The well-known working qualities of the members of this Committee is a warrant for believing that success will attend their efforts. The work given into the hands of this Committee is an extremely important one, and every member of the Association is asked to give to the Committee every possible aid and encouragement. If our membership can be doubled or trebled within the next twelve months, the work and effectiveness of the Association can be very greatly enlarged.—W. D.

Bird-box Experiences

I have on my home acre in Plainfield, New Jersey, but seven trees, in all of which I have placed von Berlepsch bird boxes, and, in addition, I have on poles and trellis work added several more; the sizes selected were for Flickers, Bluebirds, and Wrens. I also have a ten-room Jacobs' Martin house, All of these boxes were placed in position in the fall of 1909. In March of the same year, I erected two small houses of home manufacture, covered with bark, with an entrance hole suitable for Wrens. One of them was occupied June 10, when a pair of House Wrens took possession and raised a brood. During the winter of 1909, I had several feeding-places, both on the ground and in the trees; the menu was scraps of meat, boiled potatoes, oatmeal (raw and cooked), pork, suet, field corn on cob, and dried bread, both broken and rolled. The regular visitors were English Sparrows, Starlings, Tree Sparrows, Juncos, Downy Woodpeckers, White-breasted Nuthatches Jays and Crows.

The four birds first mentioned ate the food placed on the ground, as also did the crows, while the Woodpeckers, Nuthatches and Jays were satisfied with food attached to the trees. When the ground was bare, but few birds fed; but, when the ground was covered with snow, the various lunch places were almost constantly in use. "At such times, Crows were as regular in at-

tendance as any of the other birds, although they preferred to forage on a pile of house refuse at the extreme end of the garden; however, on several occasions I saw them feeding within twenty feet of the kitchen porch. The food counters were used until late in the spring, especially by a pair of Nuthatches. They were so well pleased with their surroundings that they concluded to remain, and they took possession of one of the horizontal von Berlepsch boxes, size E, and started nesting. Unfortunately a pair of Starlings fancied the same box, and one morning I found the body of the female Nuthatch lying dead on the ground under the box; her skull had been pecked open, presumably by one of the Starlings. Both English Sparrows and Starlings commenced to occupy the boxes by February 22, and became pests as they fought and drove away several pairs of Bluebirds, which would otherwise have nested. Only one pair of Bluebirds succeeded in nesting. My gardener was instructed to drive away the Starlings from this box, and finally they abandoned further efforts to occupy it, and the Bluebirds were permitted to remain in peace.

House Wrens arrived April 25. In 1909, one brood of Wrens was raised, but this year three broods—one pair had two broods, while a second pair raised a brood at the opposite end of the yard. These boxes (Size A1) were within two hundred feet of each other, but there was no clashing between the birds, although they are usually rather pugnacious in disposition. Robins, Song, and Chipping Sparrows bred on the place.

Plainfield has one large colony of Martins, which occupy four large houses on the main business street of the town. I was in hopes that some of this colony might overflow, and occupy the two ten-room houses set up by my neighbor and myself. On two occasions, Martins came to the houses, and attempted to alight and investigate; but in both instances they were attacked and driven away by English Sparrows. Not a Starling or English Sparrow was permitted to breed on my place; as fast as they built nests they were destroyed. The Starlings abandoned all further attempts toward the latter part of June, but the English Sparrows did not cease until the middle of August. In my garden I have a large bed of marigolds, and also about one hundred sunflower plants. Both of these have attracted many Goldfinches, who seem quite as fond of the seeds of the marigold as of the sunflowers. It was not an unusual sight to see half a dozen male Goldfinches feeding at the same time; I have never yet seen a female with them.

My conclusions are as follows: If a liberal supply of different kinds of food is furnished, birds will surely be attracted in the winter, and will do a great deal of good. I noticed very often that the Downies and Nuthatches would take a few mouthfuls of suet or pork and would then forage on the trees. One particular tree, a small elm, in the summer of 1909, was almost defoliated by a small black caterpillar; this year it was troubled very little. It is true that the tree was sprayed once early in the spring, but I attribute its healthy condition this year to the effective work done during the winter to my bird guests.

If plenty of drinking and bathing places and a liberal supply of breeding boxes are furnished the birds on a given area, they will surely increase. My garden, this year, has been singularly free from insect pests. I believe that I attracted some of my neighbors' birds, especially Robins, by keeping a large, shallow box filled with clear water all the time. This was placed about the center of the garden along the main walk. I have seen as many as a dozen Robins about it at once. Close by I had a very large aster bed, and, much to my satisfaction, on one occasion I saw Robins picking off the plants those discouraging, as well as disgusting, black insects known as aster beetles. My raspberries were not touched by the birds, and I am positive I did not lose a quart of them; this I attribute to the fact that the birds were kept supplied with water.

It is unfortunately a fact that the greater the effort to attract birds, the

greater the trouble that will be experienced with the English Sparrow, and also with the Starling, where the latter has become established. They probably now occupy a territory around New York City the diameter of which is at least one hundred and fifty miles. Unless some means be devised to keep them in check, they will eventually drive away all hole-breeding birds between the sizes of the Bluebird and the Flicker. Starlings and English Sparrows are aggressive, and any person who hopes to increase the native box- and hole-breeding birds on his acres must exercise a constant watchfulness, and always be ready to succor and aid the desirable bird tenants. The satisfaction I have derived this year from my bird neighbors, and the help I am certain I have received from them, is my excuse for telling the story of my pleasant experiences in attracting and protecting birds.—W. D.

Some Audubon Workers

1. CAPTAIN M. B. DAVIS

Capt. M. B. Davis, Texas Agent of the National Association of Audubon Societies and the Secretary of the Texas Audubon Society, is a veteran of two wars. He was born at Richmond, Virginia, October 14, 1844, and was taken out of a military school in 1861, to assist in organizing the Confederate Army, which was being mobilized in the vicinity of Richmond.

In July, 1861, when under seventeen years of age, he was wounded in battle on the Gauley River in West Virginia, but soon recovered, and, with the exception of periods in the hospital, while suffering with other wounds received in battle, he continued in General Robert E. Lee's army until the surrender at Appomattox Court House, April 9, 1865.

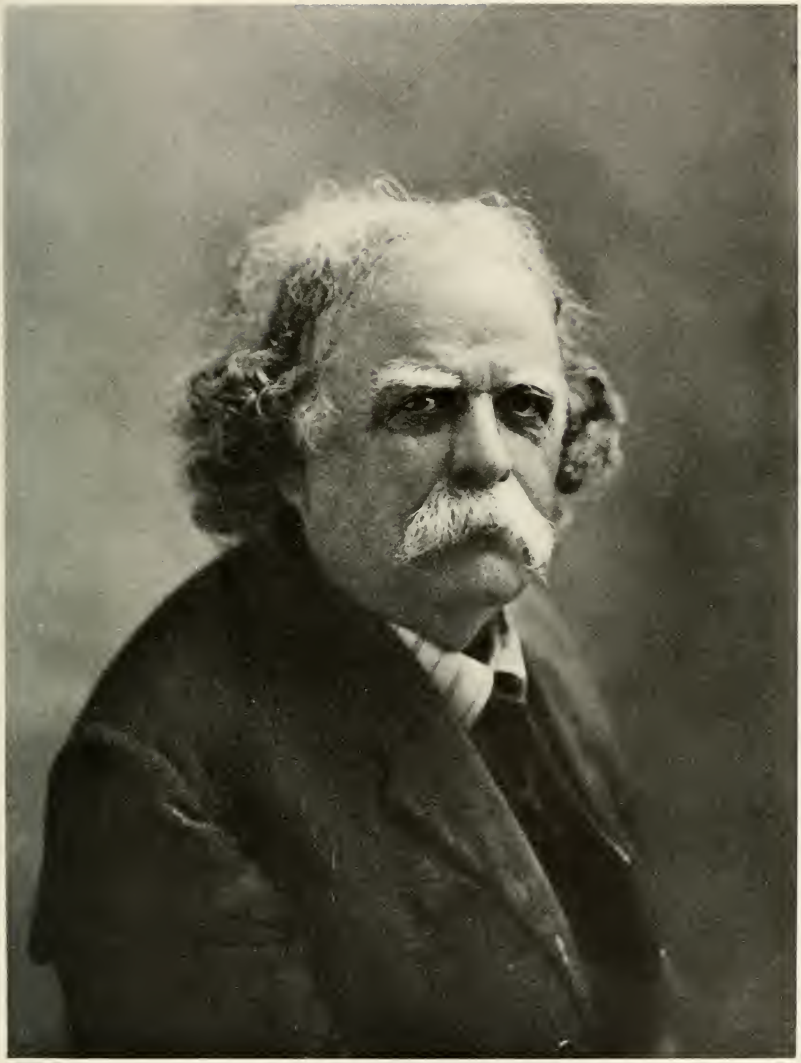
Soon after the close of the war, he went to Texas and enlisted in the Texas Rangers, serving between three and four years actively on the frontier against the Apache and the Lipan Indians. He also assisted, while a Ranger, with six-shooter and Winchester, in suppressing the white outlaw gangs, most of the members of which were killed or turned over to civil authorities and hanged.

Among the wounds received during the Civil War by Captain Davis was one on the left side of the head, and another under the left eye, the scars of which still continue visible and can be seen in the accompanying photograph.

By instinct a protector of wild life, Captain Davis organized the first Game and Bird Protective Association in Texas, in 1881. C. C. McCullough, deceased, was its president, and Herman Ambold, deceased, was its treasurer. Captain Davis was the Secretary, and in that capacity conducted a campaign through the press chiefly. In later years, the Audubon Society was started in Texas, but its most active workers were drowned on the Texas coast in September, 1900, in the great West Indian hurricane, which destroyed the city of Galveston, together with half of its population, and wrought untold horrors along the entire Gulf Coast.

In 1903, the National Association of Audubon Societies sent agents into Texas and secured the passage of the Model Bird Law. In 1904, the Texas Audubon Society was re-organized, with Captain Davis as its secretary, and since that time he has been the most potential factor in that state toward the protection of wild birds and wild animals. He writes and lectures constantly on the subject of bird and game protection, and is exerting a wonderful influence for good.

The 'Times-Herald', the daily paper of Waco, has this to say of his work: "Captain Davis has waged a brilliant and successful campaign for bird protection for several years, and has succeeded in repeopling the forests, the prairies, the meadows and the groves with bird life, which was rapidly reaching the point of total annihilation at the time he took hold of the work. To Captain Davis, more than to any other one man, is due the protective laws on the Texas statute books. He, more than any one else, deserves the credit for the expulsion from the state of the market hunters and the plume hunters,



CAPTAIN M. B. DAVIS
Texas Agent of the National Association of Audubon Societies

and, when Captain Davis dies, he should have a monument with birds engraved on the column, and there no doubt the songsters will gather and sing a requiem of peace to his soul."

In disposition, Captain Davis is very generous and kind-hearted, but he prosecutes his work with the vigor of a true crusader. He is a most entertaining gentleman, and has at his command a large fund of stories, which the writer has heard him relate with most telling effect, both on the rostrum and in the chapparal.—T. Gilbert Pearson.

State Societies News

The New Jersey Audubon Society is about to send throughout the State a very large number of appeals for new members. The appeal will be signed by a number of citizens who are deeply interested in the conservation of wild bird life in New Jersey.

SOME ENDORSEMENTS

My dear Sir:—Allow me to acknowledge with warm appreciation your kind letter of the seventh of September. It will give me pleasure to have you use my name in connection with the enclosed circular letter. That is certainly the least I can do to aid an admirable cause.

Sincerely yours,

(Signed) Woodrow Wilson.

Dr. Henry van Dyke writes: "I shall be glad to have you use my name in connection with the Audubon Society appeal. The wild birds that sing for all are a part of the people's heritage of joy and beauty. It will be strange if the people of New Jersey allow themselves to be robbed of this common inheritance. It will be strange if they do not make their legislators promise a law to protect the friendly and useful birds against the plume hunters, who are destroying them in the service of luxury and vanity. A bird in the bush is worth ten in a bonnet. He eats up the enemies of the gardens and the orchards. He works for the people, and he sings while he works. But the robbers will kill him and put him on a bonnet, unless the people wake up and protect their property. Shall New Jersey be the last of the states to take care of its birds?"

Right Reverend Bishop John Scarborough sends the following message: "It gives me very great pleasure to add my name to those you propose to enlist in the good cause of saving the birds. I am sure the Audubon Societies are trying to accomplish great good for mankind, as well as for the birds and animals."

A New Bird Preserve

Mr. James H. Bowditch, a member of this Association, with several of his neighbors, has just established in the town of Pomfret, Windham County, Connecticut, a bird preserve which embraces an area of seven hundred acres. A copy of the poster which is being used by the owners is shown in the accompanying half-tone plate. Mr. Bowditch, when notifying this Association of the establishment of this new bird refuge, writes as follows:

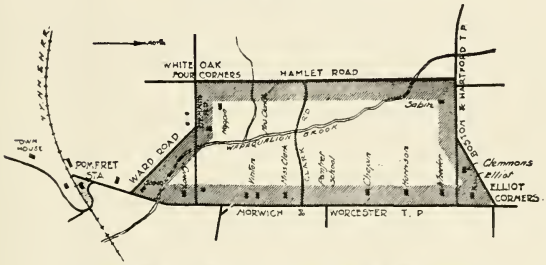
"The idea is not a new one, but its more prevalent adoption should be urged constantly. Every town should have at least one or more bird sanctuaries of this sort, as a matter of good business consideration. Insects injurious to vegetation are greatly on the increase, and it is common knowledge that this is due in large measure to the alarming decrease of our native birds, which can undoubtedly be brought back in sufficient numbers to restore the proper natural balance, if they are given a fair chance to reproduce themselves. All that is needed is one man or woman who means business, to take this work up in each town and carry it through to a successful conclusion."

The above statement contains so much practical common sense that it is presented to the readers of Bird-Lore with most hearty approval of the National Association, and with an urgent plea that the plan adopted by Mr. Bowditch and his associates will be followed all over the country.

It is not enough simply to establish

BIRD PRESERVE

700 ACRES



No Birds are to be shot or disturbed at any season of any year within the above bounds. Squirrels and other wild animals are also under protection of the Executive Committee named below.

TRESPASSERS WILL BE PROSECUTED

All persons are invited to co-operate with us toward establishing this preserve upon an effective basis, as it is manifestly for the general public welfare and interest.

LAND OWNERS

JAMES H. BOWDITCH
MARY W. CHAPIN
ELEANOR J. CLARK
Mrs. RANDOLPH M. CLARK
DANIEL E. CLEMMONS
ELIZA H. ELLIOT
THOMAS S. HARRISON
Mrs. COURTLAND HOPPIN
GEORGE M. LOWRY
Mrs. WILLIAM MURDOCK
RALPH J. SABIN
POMFRET SCHOOL
The Misses VINTON
Mrs. ALEXANDER S. WHEELER

BIRD WARDENS

JOHN ASH
RUPERT S. BAKER
EDWARD S. ENGLISH
ROBERT A. LOWRY
ROBERT MACKIE
JOHN MAHER
PETER MURPHY
ROBERT RUST

And others to be designated from time to time by the Executive Committee

JAMES H. BOWDITCH
WILLIAM BEACH OLMSTED
RALPH J. SABIN
Executive Committee.

STATE PENALTY FOR REMOVING OR DEFACING THIS POSTER

refuges; birds can be attracted to a locality by feeding in winter and furnishing drinking and bathing pools in summer, and especially by furnishing artificial nesting boxes and holes.

In this connection, it is a pleasure to announce that Houghton, Mifflin & Company have just published a book written by Gilbert H. Trafton on 'Methods of attracting Birds.'

This Association is also the selling agent in the United States of the English translation of the von Berlepsch book, entitled 'How to Attract and Protect Wild Birds,' and also has for free distribution leaflets on 'Winter Feeding' and 'Putting up Bird Boxes.'

The readers of Bird-Lore who desire to erect artificial breeding boxes and holes for birds should correspond with Mr. J. Warren Jacobs, Waynesburg, Pa., and Mr. Ernest Harold Baynes, Meriden, New Hampshire, both of whom are now successfully manufacturing artificial breeding boxes.—W. D.

Another Reason for International Bird Protection

Mr. William Alanson Bryan, our Hawaiian representative, sends the following from the 'Sunday Advertiser,' Honolulu, of August 7, 1910:

"Japs Poaching on Laysan"

"The officers of the schooner Concord, which arrived late Friday afternoon from Laysan Island, stated that a small Japanese schooner had recently put in at Laysan, supposedly for the purpose of poaching upon the bird reservation, but there was no actual proof that any had been done. It was said that the Japanese made no pretense of secrecy, and that there was a large number of men on the schooner.

"There are thousands of birds on the island, and it is easy for poachers to get them if there is no one to guard the island. The place is said to be overrun with rabbits. The Japanese vessel is said to have left Tokio last January. The officers of the craft told Captain Miller of the Concord that another Japanese schooner had been lost recently on the Pacific. The Japanese had no bird skins or feathers that could be seen by the crew of the Concord."

Foreign Bird News

With many thanks, I have the honor to acknowledge receipt of your kind letter of August 6th, and the volume of your Educational Leaflets. I must say that we are full of admiration for the great work and the noble aims of the Audubon Societies. We are very glad to receive your magazine Bird-Lore.

I shall take great pleasure in sending you a communication relative to bird protection in my country. We work by articles in the journals and periodicals. A prominent part is a series of lectures given by the President in schools and societies in the country. We have some small islands reserved and protected by a warden. I enclose a prospectus.—Laurent Mehrn, Lieutenant-Colonel, Foreign Correspondence Secretary, in the Society "Svalen." Post address: Store Kongensgade 05–3 Copenhagen.

"SVALEN"

(The Swallow)

Society for the Protection of Birds and Other Animals in Denmark. 1909

The Society "Svalen" has now done more than eleven years' work in furtherance of the aims which it has set before itself; especially, to protect the avi-fauna in such a manner that they may be developed to the advantage of agricultural interests. In the course of time, we have succeeded in enlightening a large portion of the public as to the paramount importance of birds in the great economy of Nature, and we have done our best to secure the carrying out of the Game Laws. The society participates in the international efforts directed against the massacre of birds in the South.

"Svalen" discourages the wearing of any feathers except those of the ostrich and domestic fowls—discourages illegal bird

It is a pleasure to present this photograph of some of the delegates to the Fifth International Ornithological Congress, recently held in Berlin. It was taken on the steps of the Casino in the "Tier Garden," just before a complimentary breakfast given to the members of the Congress.—W. D.

catching and cruelties to birds—places artificial nests and feeds the wild fowls in the winter—publishes printed works to interest youth in the protection of birds—instructs the public respecting the economic importance of birds to society.

The "Svalen," which works not only for birds but also for other animals, is an independent society. It is, upon the whole, useful to humanity, because it furthers the task of ennobling man under its work for animals.

The society has 5800 members, and works in about 100 districts throughout Denmark.

Her Majesty, Queen Alexandra of England, is an honorary member.

His Royal Highness, the Crown Prince of Denmark, is the Patron of the society.

Notice

The Sixteenth International Animal Protection Congress will be held in Copenhagen, August 1–5, 1911. By resolution, the Directorate of the Society 'Svalen' has charge of the arrangements for the Congress.

'Svalen,' which may be addressed at Copenhagen, heartily invites every Society interested in the protection of animals and other humanitarian work to be present at the Congress.

Methods of Attracting Birds

Several years ago, the writer undertook for the National Audubon Society the preparation of a pamphlet on methods of attracting birds. It was the original intention to have the Society print and distribute the pamphlet, but later it did not seem wise to incur the expense involved in printing the publication. Accordingly the manuscript was put into the hands of a publisher (Houghton, Mifflin Co.).

The author takes this opportunity to thank those who have assisted in furnishing material and suggestions from their experiences. Special effort has been made to give proper credit in each case.

In response to the many inquiries regarding the date of completion of the book, the writer takes this opportunity to explain that it is now ready for distribution. —Gilbert H. Trafton.

The National Conservation Congress

The Second National Conservation Congress, held at St. Paul, Minnesota, September 5-8, 1910, gave due consideration to the question of wild-bird and animal protection. Two evening sessions were devoted to considering certain aspects of the subject. Mr. Radcliff Dugmore, in his illustrated lecture on photographing big game in Africa, brought out strongly the importance of conserving wild-life, and the matter was even more fully presented the next night by Mr. Frank M. Chapman during his illustrated address on "Conservation of Bird Life."

The writer, as a member of the Committee on Resolutions, introduced the following, which was adopted as a plank in the platform of the Congress.

"We reccomend that the Federal Government conserve migratory birds and wild game animals."

This, it will be noticed, is a practical endorsement of the principles contained in the Weeks' Bill, now pending in Congress, and which has for its object the placing in the hands of Federal authorities the responsibility of making regulations governing the killing and disposition of those migratory game and non-game birds now suffering terrible destruction because of the inadequacy of the present conflicting state laws.

The endorsement also is given to the growing policy of the government to protect the game animals still to be found in the National Parks and National Forest Reserves.

In addition to Mr. Chapman and the writer, the National Association was officially represented by Mr. W. W. Grant, of New York, and Prof. D. Lange, of Minneapolis.—T. G. P.

1. Chestnut-collared Longspur, ad. male, Summer.
2. Chestnut-collared Longspur, male, Winter.
3. Chestnut-collared Longspur, female.
4. Lapland Longspur, ad. male, Summer.
5. Lapland Longspur, female.
6. Lapland Longspur, male, Winter.

(One-half Natural Size.)

Bird-Lore

A BI-MONTHLY MAGAZINE
DEVOTED TO THE STUDY AND PROTECTION OF BIRDS
OFFICIAL ORGAN OF THE AUDUBON SOCIETIES

Vol. XII NOVEMBER—DECEMBER, 1910 No. 6

A Chickadee Home

By CRAIG S. THOMS, Vermillion, S. D.
With photographs by the author

FOR several years I had been trying to induce a pair of Chickadees to build their nest in my yard, where I could watch them in their home life. They boarded with me in the bleak winters, but, notwithstanding all my alluring boxes, and hollow-wood chunks, the "call of the wild" swept them away to orchard or grove at the first peep of spring.

But the spring of 1909 brought me good fortune. A cherry tree that stood about fifty feet from my study window grew from the ground double, that is, by two trunks, one of which had for several years been dying. I did not like to lose the tree, but I would give half a tree any time for a Chickadee's nest. But to make sure that the Chickadees would build in it was the problem.

Proceeding on the principle that birds, as well as men, covet the largest results with the least amount of work, and knowing full well that saw, hammer, and chisel were more effective tools, at least for the rough part of the work, than tiny Chickadee bills, I sawed across the dead tree about three feet from the ground, cutting in about three inches; about a foot above the first cut I made a second; then, after carefully cutting the bark down the sides with my knife, so that it would not tear, I split off the whole front side of the Chickadee's house—that is, what I hoped would be a Chickadee's house. This done, with hammer and chisel I made the chips fly until I had excavated a gourd-shaped hole, very like a Chickadee's nest that I had seen years before.

As I worked, the pair of Chickadees that I had been feeding all winter cheered me on from nearby trees, seeming to wonder how I could produce such large chips.

When the hole was completed, I hollowed the part I had split off so as to make the excavation as symmetrical as possible. Then, with an auger I bored a hole at the top of the split-off piece, and fastened the piece back in its place with a large screw at each corner.

On the principle that even birds do not appreciate what they do not have

to work for, I was careful to make the hole a little too small to admit the Chickadee's body.

I had scarcely left off working when the Chickadees came for inspection. They peeked in, but did not try to enter. During several days they made numerous inspections of this new home, as well as of the Wren house, and the Bluebird house, not far away.

On April 4, the house was leased and the contract signed, for the birds began to enlarge the hole. They worked by turns, and it was the daintiest, cheeriest, lovingest working that I ever saw in the bird world. Their working, however, was at first confined to the early forenoons, for it was not to be expected that lovers could spend all their time working.

THE CHICKADEE'S HOME-SITE

On April 9, at 11.30 o'clock, the hole was large enough, and a bird entered. Judging from the time it spent inspecting the one large room, I take it to have been the female. A number of days were now spent in carefully rounding the edges of the entrance, and on April 14 the pair began to carry in material. An old weather-beaten bit of rope the dog had laid just under my window, and to this they came for loose fibers. What plucky little workers they were, planting their feet upon the rope, and diving their little bills into it, and heaving away like veritable sailors! Another old rope hung tied to a limb of the nearest tree, and to this they went for more fibers. What difference does it make to these birds whether they are right-side-up or up-side-down? To this rope they clung in all attitudes, often making it swing by their efforts, and clinging and pulling away as it swung.

I am writing as though both male and female did the work. Their colors are the same, though the male is a trifle larger. But their movements are so rapid that it is not always easy to be sure which bird enters the nest with material. I suspect, however, that the female does most of the work of carrying in material, for the larger bird often acted in a very masculine fashion,

"THIS LITTLE MOTHER WAS NOT AFRAID OF ME AT ALL"

following the other bird as she flew to the nest with material, and looking in at her as she arranged it. I presume there were many words of encouragement and praise which I could not hear; yet I thought it would have been more to the point had he done some of the hard work. On April 25, however, the male completely disarmed my criticism by sitting on the telephone wire

"SHE SAT ON HER EGGS QUITE UNCONCERNED"

and singing a very ecstatic song—for a Chickadee. The female was noticeably rushing the work that day, and evidently the spirit of her ardor had seized the male. From the Chickadee I had never heard such a song. It was not exactly a warble. It was a rapid trill on the same note, with the bird's peculiar 'ktla' right in the middle of it. I admired him for feeling that under

the circumstances he ought either to work or sing, and he was certainly making his best effort at song.

Nearly every morning, about 6 o'clock, I would hear the plaintive *phœbe* call note of these birds. Many mistake it for the note of the Phœbe. I call it plaintive, for by this note a friend of mine is always moved to sadness, and wishes the bird would go away. It is not exactly a call note, for it is as often given when the birds are together as when they are apart. To me, among all bird notes it is peculiar in this respect: it never commands one's mood, but reflects it. If he is sad, it makes him sadder; if he is joyful, it is full of cheer.

Every few days, by taking out the screws, I opened the front door to the nest—or, more accurately, removed the side of the house. By April 25, there had been laid an inch-thick foundation of rope and other fibers; above this, full two inches of moss, quite damp; and on top of this, and sunken somewhat into it, an incomplete felted nest of cowhair, woolly materials, and a few horse-hairs. For several days I had not seen the birds enter the nest, though they would occasionally light at the door, and I wondered if the nest were abandoned. The explanation was found in their method of building the felted nest, which was to throw the soft materials in by billfulls, and let it pile up until the nest was running over. Then the bird entered, arranged the material, and packed it down with her little body. When the nest was completed, this felt work was a good half-inch thick, and quite firm, while the nest was three inches deep, so deep that the little bird did not more than half fill it. Later, when she brooded her eggs, her tail stood almost straight up on one side, while her bill barely tipped the rim on the other. Usually six or seven eggs are laid, and unless the nest were deep some of the young would be crowded out.

On May 6, the nest held six eggs. I am sure that it was not six days since the last time I examined the nest. I did not note the date, because the nest held loose materials, as it had for several examinations; but I suspect that this loose material was used to cover the eggs until the whole clutch should be laid, lest some enemy—perhaps a snake—entering during the bird's absence, should destroy them.

On the day after the discovery of the eggs, I set my camera for a photograph of the little mother, arranging everything, and even focusing on my knife stuck in the side of the tree, before opening the door. When all was ready, the door was removed slowly and with utmost care. The shutter clicked, and back again went the door just as carefully. Hurrah! I had a photograph of a Chickadee on her nest, a treasure I had sought for years. But next day, after exposing several plates, I began to experiment, only to find that this little mother was not afraid of me at all. She sat on her eggs quite unconcerned, while I worked about the tree, changing my camera, focusing with the dark cloth, and doing whatever else I desired. Indeed, the bird was so far down in her nest that a good picture was not secured until I

slowly slipped my finger under her and gently raised her up. In the picture here shown, the bird is not more than half way down in her nest, and is doubtless standing on her feet.

About their nest, as indeed everywhere else, the Chickadees are ideal. While the female broods her eggs, the male feeds her. Once I saw him come only to the door without offering to enter. She was soon up at the inside of the door. He then flew away with the food, but she hurried out and into the tree-top after him with a rollicking scolding, whereupon he said he was only joking, and gave her the food. Sometimes, instead of coming to the door with food, the male would come into the branches of the tree and call. She would then come out to him, and receive the food with that delightful fluttering of wings which is characteristic of young birds.

A seemingly pleasing diversion for my Chickadees was their attacks on a cock Wren that had taken up his abode in my Wren house, not ten feet away, on the stump of an old plum tree. Ordinarily they seemed not to care for the Wren, but they would not stand his bluster, nor admit that he owned the yard. It was delightful to see them dart after him, sometimes one and sometimes both together. Until he secured a mate, the Wren did not offer battle at all. He was too busy singing. After a specially severe onslaught by the Chickadees, he could be heard singing from the middle of my woodpile, where he had taken refuge; but when the male Chickadee had gone for food, and the female was again quietly brooding her eggs, he took special delight in singing a blood-curdling war song from the branch just above the door to the Chickadee home. When the male Chickadee returned, he again took to the woodpile, nothing daunted. In due time the Wren was joined by a mate, and the two pairs became accustomed to each other and lived in comparative peace, though their nests were only ten feet apart.

Upon opening the Chickadee's nest on May 17, six young were found, possibly a day old. Now housekeeping began for my favorites in earnest. Both parents fed the young, although quite frequently the male brought worms to the little mother and allowed her to do the most of the feeding. Coming into the branches of the tree, he would call with the *phœbe* note. She would then come out to him, receive the worm, and return with it to her babes. If she delayed her coming, he would fly to the door of the nest, where she would meet him and take the worm. At other times when she came out to him, he would dart past her and into the nest, to feed the young himself, as though not quite satisfied that she should have all the pleasure and he all the work.

On May 21, when the young Chickadees were about three days old, one of the old birds disappeared—I think the male—and all the feeding had to be done by one bird. Imagine the task! With watch in hand, I saw the little mother bring food eight times in fifteen minutes; then twenty-one times in an hour. On May 25, the mother acted strangely, going to the door without

food and looking in without entering. In the branches of the tree she perched silently, and seemed to have lost heart in everything. On May 26, I opened the door, only to find the six nestlings dead. For three days there had been a cold rain, and the tender young needed the mother's body to keep them warm; but she could not both brood them and feed them. She chose the latter, but they succumbed to the cold and damp.

What happened to the male bird I cannot tell. Some careless person may have killed it thoughtlessly, just to see how well he could shoot, never suspecting that in killing this one bird he was killing seven. In our home there could not have been more sincere sorrow if our pet cat or favorite dog were dead. But next year we are hoping to rent our Chickadee home to another pair, and this time to raise the brood successfully.

Barn Owls Nesting in New York City

By HOWARD H. CLEAVES, Staten Island, N. Y.

With photographs by the author

A WESTERN reader of BIRD-LORE, who does not know exactly what territory New York City embraces, might think it impossible, or at least improbable, that a pair of Barn Owls could be found nesting within the limits of the great metropolis. He might be equally surprised to learn that a Wood Duck reared a brood there not more than four seasons ago, and that Woodcock still nest there in considerable numbers. His amazement might be almost as great if he were told that Barred Owls, Red-shouldered Hawks, Killdeers, Blue-winged Warblers and Hummingbirds also find it congenial to build their nests there. But this delightful state of affairs could easily be made clear by explaining that semi-rural Staten Island is a part of the City of New York.

Had it not been for Mr. William T. Davis, our only pair of Barn Owls on Staten Island might have passed unnoticed, officially. He had known a farmer on the southern shore of the island for many years, and used to have the man report to him when the Barn Swallows had arrived each spring. One year, Mr. Davis was told by his friend of strange sounds that had been heard near the barn at night, and, from the description, it was concluded that the noise must have been made by an Owl. Investigation proved that not only was it an Owl, but that it was a Barn Owl, and that the bird and its mate occupied an old pigeon-cote at one corner of the main barn.

At a meeting of the Staten Island Association of Arts and Sciences, held November 17, 1906, Mr. Davis read a paper on these Owls, in which he said: "On the fifteenth of last September, I climbed as silently as I could to the pigeon-loft, but the Owls heard me coming and flew to the neighboring trees.

On a lower shelf from the one they occupied I found four dead mice laid in a pile, and I was told that on another occasion they had eight others arranged in the same manner. One of the four mice found on the shelf was very large for *Microtus pennsylvanicus* (*Ord.*), and while it may be that species, the authorities to whom it has been shown are not sure of its identity. It is now in the collection of the American Museum of Natural History.

"On account of their mouse-eating habits these Owls are very useful about a barn or farm; for, while the farmer is asleep, they serve him greatly in the preservation of his crops, and it has been truly said that during all of their wanderings they are aiding mankind, their only enemy.

"On the occasion of my visit, I collected a number of pellets or rejects of these Owls, and there were remains of a great many others near-by. From these pellets I have raised the Tineid moth (*Trichophaga tapetzella* Linn.), but I found no *Trox* beetles, as discovered in pellets found under trees on several previous occasions. . . . Dr. Dyar and other authorities regard this moth as rare in the United States.

"On the eleventh of November, with Mr. James Chapin and Mr. Alanson Skinner, I visited the Owls for the third time, and, while I climbed to the loft my companions stood outside and watched the hole whence the Owls would fly. As before, the Owls heard me coming, and one walked out on the perch and stood in the light, where my companions could see it well before it flew off to a neighboring tree. It was then discovered that another Owl was hiding behind one of the rafters, and on two occasions it came from its retreat and walked about so that we could examine it closely, but it seemed anxious to hide behind a beam rather than to fly out into the daylight. Its gait was nervous and jerky, and it would stand for a moment and regard us, and then hasten to get behind the beam again. It is certainly a queer-visaged bird, is the 'Monkey-faced' Owl. It is also sometimes called 'Golden Owl', for its plumage is very beautiful."

It was through the kindness and influence of Mr. Davis that the writer was enabled to secure the photographs accompanying this article.

My several experiences with this pair of Monkey-faced Owls were, with perhaps one exception, most enjoyable; and that exception was the fault, not of the Owls, but of an ignorant farm hand. I had taken Mr. Clinton G. Abbott to the barn, and both of us, equipped with Graflex cameras, hoped to photograph the old Owl as she flew from the pigeon-loft. But I had learned from previous experiences that some one was obliged to climb the ladder inside the cote in order to start the bird from her nest or from her roosting-place. We looked about for a suitable third party to perform this necessary duty, but, contrary to the general rule, no inquisitive small boy was to be seen, and it was with reluctance that we approached one of the farmer's employees. We explained, with as little detail as possible, that, when we had scaled the outside wall of the main barn and reached the upper eaves with

our cameras, he, at a signal from us, was to slowly ascend the wooden ladder which leads to the top of the pigeon-cote.

We removed our shoes, strapped our cameras to our backs, and soon were perched in our lofty station, ready for action. The signal was given, our man disappeared through one of the doors which opens into the barn from the cow-yard, and presently we could hear him making his way up the ladder. It was a moment of great expectation and intense inward excitement. The hoods of our cameras were pressed hard against our faces, and the focus was

"IT WAS THROUGH THIS OPENING . . . . THAT THE BIRD USUALLY CAME"

kept sharp on the uppermost hole of the loft, for it was through this opening I had learned that the bird usually came. Suddenly there was a shuffling sound at the top of the cote, a white form pulled its way through the pigeon-hole, and a magnificent creature sprang out into space and winged silently away to seek the shelter of some trees on the opposite side of the road. But, with the first wing-stroke of the bird, there had sounded the "reports" of two focal-plane shutters, and, as we relaxed and shifted plates, our words of congratulation were mutual.

At just this moment, however, there began a commotion in the pigeon-loft that immediately changed our smiles to scowls of apprehension. First there was a scuffling and scratching, intermingled with some inaudible mutterings from the farm-hand, and then there began a series of pitiful, wailing cries which one could easily have believed were issuing from a human throat, but which we knew to be coming from that of a terrified Barn Owl.

"A MAGNIFICENT CREATURE . . . . WINGED SILENTLY AWAY

The situation was as plain as it was painful. The bird that we had just photographed was the male, who had been perching somewhere in the loft and had left at the sound of footsteps on the ladder. The female had remained at her post (which happened to be a nest containing eight eggs), where she had been discovered and captured by our "assistant." The bird's screams of distress suggested that her captor might be either choking her to death or wringing her neck.

"What's the trouble?" cried Abbott.

"Oi've got an owool!" shouted the Irishman.

"Let her go!" commanded Abbott.

"She's too valuable" came from the recesses of the loft.

"Don't hurt her, I tell you!" we both called in chorus.

"Oi can get $5.00 for her" returned the villain from within.

"You can't get a cent for her" Abbott explained;" it's against the law to kill her. She's worth more alive than dead, and we'll make it worth your while to let her go."

But the only answer was another series of sickening outcries from the poor bird, so Abbott, who was nearest the end of the eaves, left his camera and made a rapid descent, to have, if necessary, a rather forcible interview with the man in the coop. Fortunately, for the Owl, the Irishman, on discovering that we were angry at his holding the bird captive, had not injured her in the least; and, when confronted by Abbott in person, he surrendered the prize.

We then talked to the man as pleasantly as possible under the circumstances, and explained that the Owls caught more rats and mice about the farm than a dozen cats. We did not forget, however, that it is wise occasionally to base one's reasoning on the fact that money, in such cases, speaks louder than words. A substantial "tip" was pressed into our friend's palm, as he was instructed to have an eye to the welfare of the Owls and, as we bade him farewell and hinted that we would return in a week or two, he smiled and said, "Lave it to me. There'll be nobody touchin' 'em if I know about it!"

Much to my relief, the subsequent visit proved that, although a few of the eggs had met with disaster, the rest had hatched and the young were in good condition. On this occasion I was accompanied by Mr. Davis, and, with his assistance, succeeded in again photographing the old Owl as she flew from the cote. Her mate was absent.

The Owlets were, at that stage in their development, about as ill-proportioned and unsightly as anything in the bird world. One of them we photographed. His feathers were still in the sheaths, his feet were large and ungainly, and his head was so big and heavy that it could only be swung slowly from side to side, much after the manner in which an elephant swings his trunk. While he was being handled and photographed, he was heard to give forth two or three different sounds, the one most frequently uttered being a plaintive *chi-le-le-le, chi-le-le-le, chi-le-le-le,* repeated very rapidly.

It was discovered that, during the winter months, the Owls were not to be found at the barn. They evidently migrated each year in November, and, did not return until some time in March. But the Owls did not return with the spring of 1910. All that could be found to indicate that the loft had ever been tenanted by them were a few decaying pellets; while it was learned that, for the first time in years, a part of the coop had been reclaimed by Pigeons. We can only entertain the hope that another spring will mark the return to the farm of these birds of mystery.

An Acre of Birds

By ALTHEA R. SHERMAN, National, Iowa

THE recent establishment of a Bird Reserve in Cincinnati turns our attention once more to the rich results that may be obtained from working well a small area. Notable among the very limited spaces that have been thoroughly studied are the following: that of St. Paul's Churchyard in New York City, in which there have been seen 40 species of birds; that of the Boston Public Garden where were listed 116 species during a period of nine years; and near it, in Roxbury, a private garden of six acres in which were noted 85 species within a dozen years; that of another garden in Charleston, S. C., where were found 90 species in the space of five years; that of a small door-yard in Morton Park, Illinois, from which were observed 90 species within three years; and that of a door-yard of nearly an acre in Pasadena, California, where were counted in one season 33 species of birds, 15 of which nested there.

Of the large number of birds that have been seen from a small space in a brief time, there stands prominent the record of Mr. Ridgway, who, from his Washington yard, counted 24 species within a half hour, and who heard 25 species singing together one June day on an Illinois prairie. Perhaps the largest list for a single forenoon, on so small an area as six acres, was that obtained by two ornithologists at Scarboro, N. Y., where 77 species were seen. Several enthusiastic ornithologists in Ohio have nearly doubled this number, by devoting the whole day to the search, and by covering a much larger territory. Sufficient instances have here been cited to prove that small fields offer abundant material for bird study; but I should like to add to them some items relating to the bird population on my own home acre, where I am sure a long life might be spent in diligent study without exhausting the many secrets connected with bird-life thereon.

It was upon three acres of a cultivated field adjoining a small village that the home was started forty-four years ago. Recently three other acres of abandoned village lots have been added to the original acreage; but two-thirds of this land enters very slightly into this account, since all the nests

found, except those of five species, and all identified species, except one or two, have been seen from or within the house-yard, which contains less than an acre. The situation is six miles in an air-line from the Mississippi river, and two miles from the western edge of the timber-belt that grows along the banks of that river. The trees of the village form a small arboreal oasis on the open prairie. In the yard the hand of the pruner is stayed, and, at present, about the place there are fifteen bird-boxes; aside from these conditions, the attractions for birds are no greater than most village yards of similar extent might offer, except that at the foot of our lots there stretches a very wet meadow, whose existence has added at least two breeding and possibly a dozen migrant species to the lists. Two nesting species, the Screech Owl and the Bluebird, have come because of the boxes that have been put up; all the others have found nesting-places without human aid, for one season at least.

From the enumerations that follow, the English Sparrow is always eliminated; in fact, no record of this avian rat is kept except on the pay-roll of the three small boys who scour the neighborhood for Sparrow nests to destroy. On our place, or flying overhead, 139 bird species have been identified. All of them, except one, have passed this way within the last four years, therefore, to this limit of four years are kept all references, except those relating to four or five of the nesting species. The number of species counted on the place each year ranges from 93 to 108. The average number of species visiting us in May is 75. The largest number upon one day was 48, but on two other days 47 have been seen.

Absorbing is the subject of migrating birds, but it is the daily presence, month after month, that creates an abiding interest. For the months of May, June and July, 1910, the average daily number of bird species that were observed from or on our grounds was 25. In August the number is apt to fall considerably below this figure, yet, in 1908, there was a daily average of 22 species, the maximum number for one day being 31 and the minimum 16. Our winters are so severe that few birds linger with us. No more than a dozen species have been seen in the winters of the four years under consideration. Five of them have come for food; a daily average of three or four is the highest one can hope to secure.

The greatest opportunities offered by the place are those connected with the nest-life of the birds. Twenty-five species have nested upon our grounds, and two others, the Dickcissel and the Vesper Sparrow, may have done so without their nests having been found. Besides these, there are seven other species that breed just beyond our fences, on lands belonging to the neighbors, that may decide to locate here at some future time. The nesting species are: Sora, Bobwhite, Mourning Dove, Screech Owl, Flicker, Chimney Swift, Kingbird, Phœbe, Bobolink, Cowbird (in nests of Bobolink and Maryland Yellow-throat), Red-winged Blackbird, Meadowlark, Bronzed Grackle, Goldfinch, Chipping Sparrow, Song Sparrow, Barn Swallow White-rumped Shrike,

Maryland Yellow-throat, Catbird, Brown Thrasher, House Wren, Short-billed Marsh Wren, Robin and Bluebird. The nests of twenty of these have been built in the dooryard, all but two of them being within seventy-five feet of the house. Recently a Catbird's nest was built just two feet from the window-pane of a window whose outside blinds are usually closed. Through these one could watch the nest activities, and it is surprising to note in how many respects these differed from those of the Catbirds that nested beside the same window four years ago. One year a Phœbe built her nest under the porch, in a situation that could be watched from four rooms; this had its advantages, but far greater were those of the oft-occupied Phœbe's nest in the barn, that could be viewed at close range through a peep-hole in the floor just above it. In like manner, at a distance of no more than two feet from the eye, has been studied the nest-life of the Screech Owl, Flicker and House Wren, all of which have had nests in the barn.

In the near-by woods, that are always alluring, it is possible to spend occasionally a delightful day; but the more distant fields, that are constantly inviting, must be declined; while the birds upon one acre continue to furnish more chapters for study than it is possible to master.

Bird-Lore's Eleventh Christmas Bird Census

BIRD-LORE'S annual bird census will be taken as usual on Christmas Day, or as near that date as circumstances will permit.

Reference to the February, 1901–1910, numbers of Bird-Lore will acquaint one with the nature of the report of the day's hunt which we desire; but to those to whom none of those issues is available, we may explain that such reports should be headed by a brief statement of the character of the weather, whether clear, cloudy, rainy, etc.; whether the ground is bare or snow-covered, the direction and force of the wind, the temperature at the time of starting, the hour of starting and of returning. Then should be given in the order of the A. O. U. 'Check-List,' a list of the species seen, with exactly, or approximately, the number of *individuals* of each species recorded. A record should read, therefore, somewhat as follows:

Yonkers, N. Y. 8 A.M. to 12 M. Clear, ground bare; wind west, light; temp., 38°. Herring Gull, 75. Total, — species, — individuals.—James Gates.

These records will be published in the February issue of Bird-Lore, and it is particularly requested that they be sent the editor (at the American Museum of Natural History, New York City) not later than December 28. It will save the editor much clerical labor if the model here given and the order of the A. O. U. Check-List be closely followed.

Photographing Kingfishers in Flight

By DWIGHT FRANKLIN, New York City

With photographs by the author

FOR a long time it had been my great desire to secure a complete set of pictures showing a Kingfisher in the act of bringing food to its young. To my knowledge, this had never been accomplished. Needless to say, it is not an easy proposition.

I am indebted to Mr. Howard Cleaves, of Prince's Bay, Staten Island, for accompanying and introducing me to the spot where, in a sand-bank, the birds were nesting. The hole was located about fifty feet from the tide-line of Prince's Bay, Staten Island, and was about fifteen feet from the water's edge. About four feet below the hole, the bank sloped very gradually, so that we were enabled to set up our tripod cameras and bird-blinds. The latter were green umbrella photographic-blinds, copied after the one described and recommended by Mr. Chapman.

LEAVING THE NEST

I stepped into my blind, focused my camera, set the shutter, and waited for the bird's appearance, knowing they were not far away, keeping an eye on the hole through an opening in the blind above the camera.

Presently the familiar rattle was heard in the distance, gradually growing louder as the bird came nearer. There was a flash of blue and white, and the bird had returned with a fish in its beak.

I immediately snapped the shutter and, at the sound, the bird whirled, flew away, still retaining the fish. It soon returned, however, and thereafter

ENTERING THE NEST

RETURNING WITH A FISH FOR THE YOUNG

THE START FOR THE FISHING-GROUNDS

neither the blind nor the shutter seemed to alarm it, for it paid no further attention to them.

Both parents visited the hole at intervals, and always at full speed ; but they came rather irregularly, owing to the fact that curious passers-by stopped to gape at the blind, despite our efforts to keep them away.

The birds often saw me as I emerged from my blind and entered again, yet even this did not seem to disturb them. At one time, a blind was moved to within three and one-half feet of the hole, but the bird darted out unhesitatingly.

I found that no speed less than one two-thousandth of a second would give me a picture showing no wing motion. To get this high speed, I used a Multi-speed shutter, and found that the Lumière "Sigma" plates were the most satisfactory, owing to their extreme rapidity.

In order to obtain a good series, I was obliged to spend the better part of two days in the blind.

Aside from the photographic interest, the opportunity given for observing these wary birds at a distance of only six feet was one which would readily be appreciated by any bird-lover.

HE BIRD WHIRLED AND FLEW AWAY WITH THE FISH"

Lonely Tom—The Story of a Piñon Jay

By JOHN HAMMITT, Santa Fé, New Mexico

WHETHER he was a disgusted bachelor, a heartbroken widower, or merely a disappointed lover, I have never been able to satisfactorily settle. His coming into my possession and into my life,—the forming of a bond of sympathy and affection, which, on my part, outlasted the short span of our acquaintance—was of itself peculiar; and his reasons for departing this life so suddenly are equal mysteries. But, possibly I am getting ahead of my story.

It had been a beautiful day from the early hour when a friend and I started on a business trip of some forty miles across the prairie until our return in the late evening. To me the prairie country never appealed very strongly, so I may not be a good judge of fine days on the level plains; but this day was as fine as any I had ever seen in the West. Long, rolling expanse of pasture-land, knee-high in grass and flowers, stretched in every direction, scintillating with golden gleams, as the rays of the patient sun, now slowly sinking below the cardboard edge of the plain, bathed all in a subdued golden light. The vastness and loneliness of the prairie was relieved by occasional buttes, which, rising like pyramids in their solemn grandeur, made the quiet still more impressive, and gave one the feeling that here indeed the dross and sham of life had slipped away, and he stood face to face with his real inner self. These buttes were also of real value, for, besides relieving the tense sameness of the landscape, they were guides to the newcomer and tenderfoot, should he ever be wise enough to tell the difference between any two of them.

The sun had now reached that point where all was wrapped in a subdued, mellow, golden glow—a warm, delicious liquid fire—the true charm of the prairie, giving it a beauty that few painters have been able to reproduce. The flowers, mostly of the daisy order, sparkled in the last rays of the sun, and even the somber sage and shoestring took on an added glory. A hush—stillness as of expectancy—was over all when, as I said before, he came.

I am not generally given to day-dreaming, and on trips of this kind usually keep my eyes open for all things interesting, but this event was unheralded. My first knowledge of it was a flapping of wings, a circling near and around our heads, and a voice that seemed, more than any thing else, to be a human call for help restricted in utterance. Out of the Nowhere into the Now, was a fitting description of his sudden appearance. After a few circlings around our heads and many of his strange calls, out over the darkening prairie for several hundred yards he flew, when, just as we had about given him up and decided he had taken his departure, back he came with that strange weird cry, like the "Nevermore" of Poe's Raven, to repeat his peculiar antics.

It has ever been a pet theory of mine that the different species of animals, including the genus *Homo*, have points of strong resemblance. Notice the

gambols of a young dog, as he tumbles over himself and fairly ties himself in a knot, in his joy at being called to accompany his master on a walk or hunt. Well, just add wings to my dog and you have this bird. Once, in circling around me, he dropped down upon my head and remained for a moment. I must admit that I was much surprised, for never in my life before had I been greeted in this manner from one of the Wild Ones in his own domain. My companion laughed, and said that he certainly must be the ghost of some long-departed Indian brave, who had again started on the war-path.

I think I should be within the limits of truth in saying that these peculiar

"LONELY TOM"

actions were repeated for over a mile of the journey, as he persisted in keeping pace with our wagon. Finally we stopped, and I, rising in my seat, took off my hat and, as he circled in the air, tried to entrap him. Several times I failed, while he, seemingly undaunted, came back again and again, until at last I succeeded, and, placing him in a chicken-coop which I improvised into a cage, our short comradeship began. Arriving home, I made him more comfortable quarters and gave him a sunny spot in my window.

He may have been a pet,—lost, strayed or stolen,—but, be that as it may, he took to his new home from the first. By the end of the first week he was willing to flit from points in the room, uttering at times a peculiar human croak that led me to believe he had tried in former days of captivity to talk. I have since found that birds of the Jay and Magpie families can learn to talk or imitate speech, some of them equaling the best Parrots. In this con-

nection, I remember an amusing incident that occurred several years ago, while on a visit to a school where I remained for several days. One morning while awaiting the breakfast hour, I was reading on the veranda, when I was accosted by a very hearty "Hello! Hello!" Looking up, I was amused, as well as surprised, in seeing a Magpie solemnly walking up and down the walk, looking at me with his head tilted to one side, and punctuating his morning exercise by his distinct and hospitable salute.

But to return: I named him Tom, and imagined, shortly, that he knew his name. He lived upon the fat of the land. He was, if I am not greatly mistaken, a Piñon Jay, and beautifully marked in shades of blue and slate. He lived up to all the standards and reputation of his race, and seemed equally as proud of the one as of the other. He was inquisitive to a fault, and interested and attentive in all that went on around him. I would often place him on a penholder stuck in the stopper of my ink-bottle, and here he would sit for long periods, his head tilted to one side, watching my hand intently in its movements across the page in writing: and how he would follow me with his eyes as I walked from place to place across the room! He soon learned the base of supplies, and, when I crossed in this direction, I was sure to be greeted with his merry croak, and down he would fly to my arm and peck at the cracker I usually had for him. Upon coming in from work, I would whistle to him as I entered the room, and he would usually flit to my shoulder, never omitting his unearthly call.

One thing, however, puzzled and worried me. Tom ate too little, and daily grew thinner. I offered him every dainty I could think of and secure, but of no avail. He turned up his aristocratic nose at all. Raw meat was the most tempting, and sometimes crackers, but he seemed happier in making a noise than in eating. At last I offered him his freedom, but the rascal, after a few turns in the air, came back to the window-casement, pecked a few times at the woodwork, gave a sad croak and hopped inside. He seemed possessed of a feeling or presentiment that he must soon depart this sad world, and preferred to do so in good society. Ofttimes in the night he would utter his strange call, and, if I happened to be awake and spoke or whistled back, he would repeat it.

One night, about the fourth week of his stay with me, I heard him moving about more than usual, as if an uneasy spirit ruled him. In the morning he did not respond to my usual call, and upon investigating I found that he was indeed free. Was that midnight croak his farewell to me? What strange notions ruled his life? Was he a social outcast from his tribe? Had his life's experience proven too severe for him and he voluntarily left his companions? Had he once been a captive and escaped, but, after a short taste of freedom, reëntered captivity of his own choice? Or was he half-crazed over the loss of his mate and, willing to starve rather than live on alone? And why, meeting on the lonely darkening prairie road, did he attach himself to me? Who can say?

The Migration of North American Sparrows

SEVENTH PAPER

Compiled by Professor W. W. Cooke, Chiefly from Data in the Biological Survey
With Drawings by Louis Agassiz Fuertes
(See frontispiece)

CHESTNUT-COLLARED LONGSPUR

A species more particularly of the western treeless regions, where it breeds from central Kansas north to southern Canada and winters from Nebraska to Mexico.

SPRING MIGRATION

PLACE	Number of years' record	Average date of spring arrival	Earliest date of spring arrival
Onaga, Kans.	5	March 22	March 13, 1900
Huron, S. D. (near)	4	March 25	March 24, 1886
Aweme, Manitoba	9	April 14	April 5, 1905
Indian Head, Sask.	2	April 24	April 23, 1905
Cheyenne, Wyo.			March 16, 1890
Terry, Mont.	3	May 2	April 26, 1908
Big Sandy, Mont.	2	May 3	April 21, 1904
Nanton, Alberta			May 4, 1908

PLACE	Number of years' record	Average date of the last one seen	Latest date of the last one seen
Boerne, Tex.			March 2, 1880
San Antonio, Tex.	2	April 24	April 25, 1890
Onaga, Kans.	3	April 14	April 18, 1891
Silver City, N. M.			April 13, 1884
Huachuca Mts., Ariz.			May 3, 1902
Cheyenne, Wyo.			May 1, 1889
Grinnell, Ia.			May 15, 1887

FALL MIGRATION

PLACE	Number of years' record	Average date of fall arrival	Earliest date of fall arrival
Barr, Colo.			September 12, 1909
Glorieta, N. M.			September 12, 1883
Rincon Mts., Ariz.			September 22, 1907
Onaga, Kans.			October 22, 1896
Bonham, Tex. (near)	3	November 8	November 3, 1884

FALL MIGRATION, continued

PLACE	Number of years' record	Average date of the last one seen	Latest date of the last one seen
Indian Head, Sask.			September 23,1904
Aweme, Manitoba	12	October 2	October 14, 1897
Huron, S. D. (near)	3	October 10	October 17, 1903
Onaga, Kans.			November 2,1896
Terry, Mont.			September 23,1903

LAPLAND LONGSPUR

This is an Arctic-breeding bird, that winters principally in the northern part of the Mississippi Valley, occurring less commonly east and west, and rarely south to South Carolina and Texas.

SPRING MIGRATION

PLACE	Number of years' record	Average date of spring arrival	Earliest date of spring arrival
Grand Manan, N. B.	2	March 22	March 20, 1887
Godbout, Quebec	4	April 17	April 10, 1887
Prince of Wales Sound, Labrador			May 14, 1885
Port Kennedy, Franklin			May 20, 1859
Ivigtut, Greenland	3	May 22	May 20, 1888
Plymouth, Mich.	3	March 24	March 23, 1897
Northern Iowa	3	March 9	March 6, 1898
Elk River, Minn.	4	March 25,	March 17, 1890
White Earth, Minn.			March 18, 1882
Northeastern North Dakota	4	March 22	Febuary 28,1900
Aweme, Manitoba	14	April 3	March 20, 1905
Flagstaff, Alberta	3	May 1	April 25, 1906
Fort Simpson, Mackenzie			April 25, 1904
Lynn Canal, Alaska			April 21, 1882
Kowak River, Alaska			May 20, 1899
Point Barrow, Alaska	2	May 22	May 20, 1882

PLACE	Number of years' record	Average date of the last one seen	Latest date of the last one seen
Raleigh, N. C.			Febuary 20,1895
Erie, Pa.	5	March 10	March 25, 1875
Long Island, N. Y.			April 18, 1885
Godbout, Quebec			May 14, 1887
Gainesville, Tex.			March 1, 1884
Onaga, Kans.	9	March 14	March 30, 1892
Fayette, Mo.			March 31, 1889
Canton, Ill.	3	March 1	March 29, 1896
Grinnell, Ia.	2	April 3	April 22, 1889
Plymouth, Mich.	3	April 2	April 20, 1893
Oberlin, O.	3	April 14	April 23, 1897
Southern Wisconsin	5	April 26	April 29, 1884
Laramie, Wyo.			April 3, 1899
Fort Custer, Mont.			April 4, 1885
Chilliwack, B. C.			March 31, 1888
Aweme, Manitoba	11	May 18	May 24, 1907

FALL MIGRATION

PLACE	Number of years' record	Average date of fall arrival	Earliest date of fall arrival
Aweme, Manitoba	10	September 3	August 20, 1898
Okanagan, B. C.	2	September 25	September 20,1907
Great Falls, Mont.			September 13,1889
Manistee, Mich.			September 29,1904
Grand Manan, N. B.	2	October 14	October 10, 1888
Erie, Pa.			October 3, 1889
Long Island, N. Y.			October 18, 1888
Wray, Col.			November 16,1901
Lanesboro, Minn.	4	November 10	October 29, 1890
Onaga, Kans.	12	November 4	October 5, 1891
Bonham, Tex.			November 9, 1889
Grand Manan, N. B.	2	October 14	October 10,1888
Erie, Pa.			October 3, 1889
Long Island, N. Y.			October 18, 1888
Oberlin, O.			October 15, 1906
Chicago, Ill.	6	November 4	September 24,1896
Washington, D. C.			December 11,1886
Chester, S. C.			January 1, 1881

PLACE	Number of years' record	Average date of the last one seen	Latest date of the last one seen
Kowak River, Alaska			August 16, 1898
Point Barrow, Alaska			September 4, 1882
Nome City, Alaska			September 10,1899
Unalaska, Alaska			October 5, 1899
Ivigtut, Greenland			August 30, 1887
Aweme, Manitoba	10	November 4	November 25,1904

Notes on the Plumage of North American Sparrows

SIXTH PAPER

By FRANK M. CHAPMAN

(See frontispiece)

Chestnut-collared Longspur (Figs. 1–3). This species has the four outer tail feathers largely white, in which respect it differs from the Lapland and Smith's Longspurs and agrees with McCown's Longspur. From the latter, aside from other characters, it differs in having the two outer tail-feathers white to the tip, while McCown's Longspur has all but the outer feather conspicuous tipped with blackish. The character seems slight, but is readily obvious in life.

Fuertes suggests the name V-tail for the Chestnut-collared, and T-tail for the McCown's Longspur, and his colored drawings for this and the next issues of Bird-Lore contain small figures of the birds in the air in which these tail markings are shown

In juvenal plumage, the Chestnut-collared Longspur has the feathers of the back terminally margined with whitish, producing not a streaked, but *ringed* appearance. The bird, indeed, is surprisingly like a juvenal Grasshopper Sparrow, in this respect. The underparts are buffy, more or less heavily streaked with blackish, the throat being whiter.

The first winter plumage is acquired by molt, which appears to be restricted to the body plumage, the wing and tail feathers being retained. The bird now resembles the adult in winter plumage, but, as a rule, has less black on the underparts. The lesser wing-coverts resemble the greater coverts in color, and are not black bordered with white as in the adult, and the chestnut of the nape is less evident.

The prenuptial, or spring molt, is very limited, being apparently restricted to the anterior portions of the head, the change from the brownish winter to the striking breeding plumage being accomplished chiefly by a wearing away of the brownish tips and margins of the feathers.

First nuptial resembles adult nuptial plumage, but the chestnut nape is paler, and the lesser wing coverts are brownish as in winter.

The adult male, at the postnuptial molt, acquires a winter plumage (Fig. 2), which, as has just been said, resembles that of the young bird, but has the lesser wing-coverts black and more black on the underparts. Nuptial plumage is acquired, as in the young bird, partly by molt but chiefly by abrasion.

The female (Fig. 3) presents no striking seasonal changes in plumage. In worn summer plumage the underparts become more or less streaked, and the basal chestnut or blackish marking on some, doubtless old specimens, then become partly revealed.

Lapland Longspur (Figs. 4–6). The Longspurs, as a group, may be known by the length of the hind toe-nail. While this may not be regarded as an easily observed field character, it might at least serve in distinguishing the tracks of these birds from those of certain Sparrows which they resemble in plumage.

The Lapland Longspur differs from the Chestnut-collared Longspur, as the plate shows, in many respects, but in life, even at a distance, they could be readily identified by the difference in the amount of white in their tail-feathers, the former having only the two outer feathers with white, the latter the outer four. Indeed female, and some winter male, Lapland Longspurs more nearly resemble, superficially, Vesper Sparrows than they do birds of their own group.

In juvenal plumage the Lapland Longspur is very Sparrow-like in appearance, with the forebreast and sides streaked with dusky and buff. Late in July or early in August, this plumage is exchanged for the first winter plumage (Fig. 6), which is acquired by molt of the body feathers and most of the wing coverts, the tail feathers and wing-quills of the juvenal plumage being retained. The young bird is now essentially like the adult in winter plumage.

The first nuptial plumage, according to Dwight, is acquired by a partial spring molt of the feathers of the anterior parts of the head, chin and throat, which now become black and whitish; but the chestnut nape, and more distinctly marked back, are due to a wearing off of the brownish edges of the feathers of the winter plumage (Fig. 6).

The adult male, after the usual complete postnuptial molt, resembles the young male in its first winter plumage, and their subsequent plumage changes are the same.

The female, in juvenal plumage, resembles the male in the same plumage; but in the first winter plumage, which is acquired by molt, as in the young male, she has less, and sometimes no black, on the throat and less rufous on the nape. The nuptial plumage is acquired partly by molt and in part by wear.

The Alaskan Longspur (*Calcarius lapponicus alascensis*) resembles the form from northeastern America, but has had the margins to the feathers of the back much paler, brownish gray or buffy, the nape, in winter, being more buffy.

THE GOLDEN-CROWNED KINGLET

When April sun and April showers
Are calling to the sweet spring flowers;
Or, when October is aglow,
You'll find him flitting to and fro,
This midget, clad in olive gray,
With bright black eyes, who seems to say:—
"If not so busy, I might wait
To get acquainted; here's my mate;
But I must hasten—*zee, zee, zee!*—
To catch each tidbit that I see."
From branch to branch he flutters past,
Now up, now down, he darts so fast
With wings atwinkle, you must peer
Quite carefully and stand quite near,
To find, that which from robbers bold
He guards so well,—his crown of gold.

—Laura E. Smith.

Notes from Field and Study

Some Random Bird Notes

I was very much interested in the different papers published in 1910, of BIRD-LORE, for, while a farm-dweller, I have been a much interested observer of bird life about me, and for years have tried in every way to attract the birds to my lawn and the big maples at the side, and in other ways induce them to nest about the door, and the sheds, and shrubbery adjacent to the house; and I have been very successful.

For years I have had a very promising colony of squirrels that are very familiar "citizens" of the lawn, and big near-by trees, and, so far as I know, they have not molested the birds; but the red squirrels do, and they are shot as fast as they show up during the nesting season of the birds. English Sparrows are the worst enemy, and they are shot on sight. Years ago they became very wary, but the occasional shooting of a stray one keeps the lawn practically free of them.

In the trees, in nooks and corners about the buildings, we keep boxes and little paint kegs fastened, with all sizes of apertures for entrances, and usually have tenants for them all. In protected places, like the gable rake of the carriage-house, there are Robins' nests. One nest has now been occupied for three years in succession, has been the home of six broods of birds, and is in good shape for 1911 tenants. The birds repair it a little each nesting, and it is now quite eight inches in height.

The Bluebirds come back to the old nest-boxes, year after year—I think the same birds. A nook in the kitchen porch is a favorite place to nest, and, one year, two families were located there at the same time, their nests being not over five feet apart. The Tanagers have nested in the maple, not thirty feet from the house, and Chippies, Wrens, Catbirds, and the like, are common inhabitants. I suppose because of a fancied protection. Orioles are induced to build in the elm near the door, possibly because the old farmer, when they arrive in the spring, puts there a great assortment of white strings, very finely torn slips of white rags (red will not be accepted), and cotton waste, all of which is eagerly taken up in nest-building. One Oriole put nearly one hundred feet of fine white twine, cut into foot-lengths, into her nest this season, and would almost take the strings out of my hand, to deftly felt into her nest.

In the winter, I have known about twenty varieties of birds to feed upon my bounty. If cats attempt to molest, a charge of salt fired into their fur will cause them ever after to give that place a wide avoidance. Suet is the most attractive food we can put out for the majority of my guests. We take a piece of about a pound weight, wind it closely with twine, tying frequently, and then suspend it to the outermost boughs of a tree, about ten feet above the ground, and a like piece in another place. This attracts the Woodpeckers, the Nuthatches, Jays, Cardinals, Titmice, and the like; while about a shallow box, with a wide, flat cover, about five inches above it, which is placed securely on a limb of a tree, and supplied with coarse, ground chicken feed, one soon finds yet another class of happy boarders, eating at all hours, and dodging the cashier's desk as well. In protected places, under open sheds, and in sheltered nooks, we put big baskets of barn-floor sorts and chaff for yet another class of birds, the Juncos, Sparrows, and the like, and the way they make the chaff fly in search of seeds would do credit to hens. So, this way, without much labor—and that compensated for ten times over—this farmer keeps a great company of birds about his door, and is coming to know them in some measure. But that colony of fox squirrels! They live in the big maple trees near-by, run on, and over the lawn, and are fed some hickory nuts and ears of corn,

which are wired to the trunks of the trees. They are never in mischief, constantly give me new ideas about animal life, and, as an attraction to the lawn, have never had an equal,

In the above, it will be seen how a farmer who wills, may have a recreation that is always new, always educational,—one that adds to the attractions of life on a farm and brings him closer to nature.—John Gould, *Maple Crest Farm, Aurora, Ohio.*

A ROCKY MOUNTAIN BIRD-TABLE

A Rocky Mountain Bird-Table

My bird-table is built around an old tree, about three feet above the ground. It is ten feet from my window. On the table I keep a dish of water, a box of cracked corn, and occasionally a turnip or an apple. Meat scraps and suet are fastened to the limbs of the tree. I keep open house only in winter. The frequent visitors are Long-crested Jays and Magpies; the occasional visitors include, Chickadees, Gray Jays, Downy Woodpeckers, a straggling Robin and, once in a while, a Junco. The Crested Jays and Magpies prefer suet; in the absence of it, devour cracked corn freely. The Magpies come first, of a morning, and whenever they arrive the Jays and other birds give way, but wait near-by. My home and table are on the slope of Long's Peak, Colorado, at an altitude of 9,000 feet.—Enos A. Mills, *Estes Park, Colorado.*

1910 Bird Notes from Long Beach, L. I.

The majority of bird-students around New York seem to have chosen Rockaway Beach as a happy hunting-ground for the water-birds, so I thought that the following notes might be of interest to readers of Bird–Lore. They are the result of a series of expeditions made by Mr. Stanley V. La Dow and myself, in all except the mid-summer months. Not only rare species but also unseasonable records are given. The biggest list for one day was reached on Oct. 30, when Mr. La Dow and I observed thirty-eight species, and only twice in the last three years has the day's list fallen below twenty. Needless to say,

all the birds noted have been indentified with as much care as powerful binoculars permit, and no questionable records are included.

Great Black-backed Gull, 1, May 13, 10., Sept. 27, Ring-billed Gull, 1, Feb. 13, Red-breasted Merganser, 5, May 21. Black Duck, 18, May 21. Old-squaw, 1, May 27. White-winged Scoter, 1, May 21. Surf Scoter, 20, May 21. White-rumped Sandpiper, 2, May 21; 1, Oct. 23. Sanderling, 1, Jan. 4. Hudsonian Curlew, 12, May 13, same number, May 21.

This fine bird but rarely comes within range of the field-glass student. On May 13, I was so fortunate as to get within seventy-five feet of the flock, though it meant a half-hour crawl on my hands and knees in the mud of the marsh.

Duck Hawk,—A fine bird on Sept. 27, Sharp-tailed and Seaside Sparrow. More and more individuals of these species seem to be lingering along our coasts. (Vide the winter Seaside Sparrows from Barnstable, Mass., and my winter Sharp-tail from Long Beach; Bird-Lore's tenth Christmas Census). On Nov. 6, Mr. La Dow and I observed an individual of both species in a certain tract of reeds where the birds have lingered through October. American Pipit. — 1, Jan. 4. Ludlow Griscom and Stanley V. La Dow, *New York City*.

Hardy Snow Buntings

On cold, frosty nights, with the thermometer away below zero, one wonders how the winter birds are faring.

Nearly every winter, the Snow Buntings roost in the chinks on the north side of our granary. On fine nights, when it is not too cold, they have a fairly good place, if the wind does not blow directly on them.

But on January 14, 1907, the wind blew roughly right on the ledges where the birds roost, and the thermometer registered 36° below zero. Soon after sundown, as I looked to see if there were any birds on the granary, I was surprised to see about twenty Snow-Buntings in their usual place, fully exposed to the biting wind.

For the benefit of those who have not experienced such low temperature, I might say that a wind as cold as that will freeze one's unprotected face almost instantly; yet here was a flock of little birds going to sleep, not protected from it in the least, as unconcernedly as though it were a warm summer night. There were plenty of places about the buildings they could have roosted in, well sheltered from the wind, but few that were more exposed than the one they chose.

Next day they were as lively as ever, and apparently none the worse for the cold.—John Woodcock, *Minnedosa, Manitoba*.

Absence of Kinglets

I notice in Bird-Lore for May-June that no Kinglets were seen in northern New Jersey from Dec. 1 to March 27,

It is noteworthy that no Kinglets of either kind have been seen hereabouts in either the spring or fall migration, this year, though we, as a rule, have both kinds in the spring migration, and the Ruby Crown in the fall. They often are here for several weeks, both in the woods and about the house.—Eliza F. Miller, *Bethel, Vermont*.

The Twenty-eighth Annual Congress of the American Ornithologists' Union

The Twenty-eighth Annual Congress of the American Ornithologists' Union was held in Washington, D. C., November 14-17, 1910.

At the meeting of the Fellows of the Union, held on the evening of the fourteenth, the following officers were elected: President, E. W. Nelson; Vice-presidents, Frank M. Chapman, A. K. Fisher; Secretary, John H. Sage; Treasurer, J. Dwight, Jr.

The following were elected as Members of the Union: J. H. Bowles, California; E. S. Cameron, Montana; Ned Hallister and W. L. McAtee, Washington, D. C.; E. R. Warren, Colorado. Ninety associate members were elected.

The public sessions of the Union were held in the new building of the United States National Museum, and were attended by 109 members of the Union. Luncheon was given each day by the Washington members of the Union. There was a largely attended dinner at the Riggs House on the evening of the 16th, and, on the evening of the 17th, Dr. and Mrs. C. Hart Merriam received the members at their home. Aside from the scientific interests attached to an excellent program the meeting of the Union afforded an opportunity for that social intercourse which is so important a part of gatherings of this kind,

The Twenty-ninth Congress of the Union will be held in Philadelphia.

PROGRAM

TUESDAY MORNING, NOVEMBER 15

'Courtship of the American Golden-Eye or Whistler,' by William Brewster, Cambridge, Mass. 'Notes on the Great Auk, the Passenger Pigeon, and Eskimo Curlew,' by Edward H. Forbush, Boston, Mass. 'The Passenger Pigeon Investigation for 1910,' by Clifton F. Hodge, Worcester, Mass. 'Concealing Coloration,' by Abbott H. Thayer, Monadnock, N. H.

TUESDAY AFTERNOON

'Two Hawk Families,' illustrated by lantern slides, B. S. Bowdish, New York City. 'Some Rare and Interesting Birds of the Sunken Lands in Arkansas and Missouri,' illustrated by lantern slides, by Arthur H. Howell, Washington, D. C. 'Some Experiences and Impressions of the Cowbird,' illustrated by lantern slides, by Wilbur F. Smith, South Norwalk, Conn. 'Some Ornithological Results of Biological Survey Field Work in 1910,' illustrated by lantern slides, by Vernon Bailey, Washington, D. C. 'A Junco Experience,' illustrated by lantern slides, by Wilbur F. Smith, South Norwalk, Conn. 'Isochronal Lines of Bird Migration,' illustrated by lantern slides,' by Wells W. Cooke, Washington, D. C. 'Bird-Life on Mt. Orizaba, Mexico,' illustrated by lantern slides, by Frank M. Chapman, New York City.

WEDNESDAY MORNING, NOVEMBER 16

'Overcoming Fear in Birds,' by Ned Dearborn, Washington, D. C. 'Bird Strays in a Great City (New York),' by John Treadwell Nichols, New York City. 'The Color of the Gular Sac of the Water Turkey (*Anhinga anhinga*),' by Arthur T. Wayne, Mt. Pleasant, S. C. 'Device for the Convenient Examination of Arboreal Birds' Nests,' by William Brewster, Cambridge, Mass. 'Mimesis and Rhythm in Bird Songs,' by P. B. Peabody, Blue Rapids, Kans. 'Antiphony in Bird Songs,' by Henry Oldys, Washington.

WEDNESDAY AFTERNOON

'Photographing Wild Birds by the Lumière Direct Color Process,' illustrated by Autochromes, by Frank Overton, M.D., Patchogue, N. Y. 'Flashlight and other Bird Photographs,' illustrated by lantern slides, by George Shiras, 3d, Washington, D. C. 'Bird-Life on the Tamiahua Lagoon, Vera Cruz,' illustrated by lantern slides and motion pictures, by Frank M. Chapman, New York City. 'Studies of Winter Wild-fowl in Lower Louisiana,' illustrated by lantern slides, by Herbert K. Job, West Haven, Conn.

THURSDAY MORNING, NOVEMBER 17

'Collation of Brisson's Genera of Birds with those of Linnæus,' by J. A. Allen, New York City. 'Nest Life of the Screech Owl,' by Althea R. Sherman, MacGregor, Iowa. 'On Some Overlooked Nuptial Plumes of Certain American and Old World Bitterns,' by William Brewster, Cambridge, Mass. 'The American Passenger Pigeon,' Translated from the Original of Peter Kalm, by L. M. Gronberger, Washington, D. C. 'The Extermination of the Wild Turkey in the State of Virginia,' by R. W. Shufeldt, Washington, D. C. 'List of Birds Observed in Estes Park, Colo., from June 10 to July 18, 1910,' by O. Widmann, St. Louis, Mo.

Book News and Reviews

Methods of Attracting Birds. By Gilbert H. Trafton. Houghton, Mifflin & Co. 12mo., xvi + 171 pages, 39 illustrations. Price, $1.25.

From a great variety of sources, including his own experience, Mr. Trafton has here brought together much practical information in regard to bird-houses, feeding-stands, planting, and other means of attracting birds, and adds a chapter on bird protection in schools, which his work as a teacher makes of especial value. The books will answer the frequently asked question as to how to bring birds about our homes in summer, as well as in winter, and it should therefore exercise a wide influence in protecting birds and strengthening our friendship with them.—F. M. C.

Life and Behavior of the Cuckoo. By Francis H. Herrick, Journ. of Experimental Zoölogy, IX, 1910, pp. 109-233; plates, 7.

We very earnestly commend this paper, which we cannot review at the length adequate treatment of it demands, to every student of birds in nature. After a review of the known facts concerning the nesting habits of the European Cuckoo (*Cuculus canorus*), Professor Herrick adds an elaborate study of the home-life of our Black-billed Cuckoo (pp. 193–232), and reaches the following conclusions:

"1. Cuckoos do not display more intelligence than many other species of birds, the extraordinary acts which many of them perform being sufficiently accounted for by the possession of modified and highly specialized instincts.

"2. The origin of the parasitism in many of the Old-World Cuckoos and American Cowbirds is to be sought in the disturbance of the cyclical instincts, to which it has been shown that these families of birds are especially subject, and, in particular, in the attunement of egg-laying to nest-building. Sporadic cases of this sort occur in all birds, when they either drop their eggs on the ground and eventually abandon them, or lay in other birds' nests, when they will sometimes fight for possession. We may assume that through the action of inheritance and selection the practice has become established more or less completely in the present parasitic species; but while we can indicate the steps of the process, the causes which have led to each, in succession, can only be surmised.

"3. American Black- and Yellow-bill Cuckoos show a tendency to produce eggs at irregular intervals of one to two or three days, which accounts for the presence of eggs and young in their nest for a longer time than is usual; but here the comparison ends. Any disadvantage which might arise from such a condition has been completely allayed by an early division of the young, each one of which (in the Black-bill) leaves the nest in succession on the seventh day from birth, and spends about two weeks in a climbing stage preparatory for flight. Special powers and instincts have arisen in the young in adaptation to this condition.

"4. The evicting instinct of certain Old World Cuckoos has apparently arisen as a response to a contact stimulus of a disagreeable kind, which would be more irritating in a living and moving nestling than in a dead one. It is transitory, beginning to rise on the first to third days, and to wane in the tenth to the fourteenth.

"5. The American Black-billed Cuckoo is born with rudimentary down, which never unfolds. It has strong grasping reflexes, and is remarkably enduring. It can hold by one leg or toe for a surprising length of time, and draw itself up to the perch with one or both feet, at birth or shortly after,—powers which no other birds in this part of the world are known to display, and which must be regarded as preparatory to the climbing stage soon to follow.

"6. On the sixth day, the complete quill stage is reached, when the bird bristles

with feather-tubes, which bear at their apices the white hair-like tubes of the down. The preening instinct has then asserted itself, and the horny cases of the feather-tubes, giving way to their bases, are rapidly combed off by the bill over the greater part of the body. The wing- and tail-quills, as well as some of the contour-feathers, are released in the usual way, centripetally from their tips.

"7. Fear is attuned to the climbing stage, and not to that of flight, as in all the common altricious birds, and matures with comparative suddenness on the sixth day, or shortly before the bird is ready to climb.

"8. Parental instincts are as strong in the American Cuckoos as in thrushes or in passerine birds generally, and there is no more indication of a retrogression to parasitism in the former than in the latter.

"9. The nests of these Cuckoos, though slight, are well adapted to their purposes, and often long outlast their use.

"10 When disturbed in its nest-activities, the Black-bill has been known to transfer its eggs to a new nest of its own; an action which strongly suggests the practice of the European Cuckoo of carrying its laid egg in bill to the nest of a nurse.

"11. The American species occasionally 'exchange' eggs, or lay in other birds' nests, and when so doing the Black-bill has been known to struggle for possession of the stolen nest. Since similar actions have been repeatedly observed in one or another degree, in numerous species in which no suspicion of parasitism exists, and in all parts of the world they must be ascribed, in addition to the reasons given above, not to 'stupidity or inadvertence,' or to 'a tendency towards parasitism,' but to temporary irregularities in the rhythms of the reproductive cycle."

Distribution and Migration of Shore-birds. By Wells W. Cooke. Bulletin No. 35, Biological Survey. 100 pages, 4 plates.

To his valuable bulletins on the migration of Warblers, and of Ducks, Geese and Swans, Professor Cooke now adds one on a group of birds remarkable for the length of their semi-annual journeys. This bulletin, like its predecessors, is based on published records, on specimens, and on data from the great corps of volunteer observers who, for the past twenty-five years, have been contributing their observations to the Biological Survey. Both the ornithologist and the sportsman are to be congratulated on the appearance of a publication which places within their reach such an unequaled series of authoritative records in regard to the movements of birds in which both are interested.—F. M. C.

The Ornithological Magazines

The Auk.—Readers of the July number will be well repaid for the perusal of H. W. Henshaw's Migration of the Pacific Plover to and from the Hawaiian Islands, which is a most fascinating contribution to the subject of bird migration. The fact that the Pacific form of the Golden Plover finds its way over 2,000 miles of trackless ocean, twice in the year, is clearly established, and at the same time the writer frankly admits that all solutions of how and why this migration is accomplished are purely hypothetical. Sportsmen and others will also be interested in J. C. Phillips' 'Notes on the Autumn Migration of the Canada Goose in Eastern Massachusetts.'

The titles of several faunal lists are 'Summer and Fall Birds of the Hamlin Lake Region, Michigan" by R. W. Chancy; 'Notes on the Birds of Pima Co., Arizona,' by S. S. Visher; 'Notes on the Summer Birds of Kentucky and Tennessee,' by A. H. Howell; and 'Bird Photographing in the Carolinas, with an Annotated List of the Birds Observed,' by B. S. Bowdish and P. B. Philip. The last is illustrated, but, as a rule, these local faunal lists are not inspiring. Then, too, there is a growing tendency to include every bird seen or heard, while the taking of specimens has apparently become a secondary and somewhat superfluous matter. It would seem, for instance, as if an observer who is in doubt about the indentification of a Hudsonian Godwit viewed at binocular

range, should either use a gun or omit the record.

The nesting of 'The Black-throated Green Warbler' is pleasantly described by Cordelia J. Stanwood, and excellent photographs of the nest are shown—misplaced in binding—at page 304. We note that 'Henlow's Sparrow as an Ohio Bird,' by W. F. Henninger, is accompanied by a photograph of a doubtfully 'authentic' nest, and it smacks unpleasantly of modern commercialism to read that 'republication in any other work will be strictly dealt with according to law.' Is the independent spirit of scientific ornithology so dead that 'The Auk' meekly accepts and publishes such stuff. The reviewer may also be pardoned for expressing his belief that the 'Resurrection of the Red-legged Black Duck,' by William Brewster, while amusingly written, fails to establish any new facts, and we have already had the old ones before us for a long time.

General notes and reviews are numerous and instructive. Some of us will be surprised to learn of the abundance of the Blue Goose (*Chen cærulescens*) in Louisiana, as recorded by W. L. McAtee, who saw them in thousands.

In the October number of The Auk we can, figuratively speaking, put on our hats and go out into the open air to study birds at close range. We may go at daylight, with Mrs. F. M. Bailey, to arid New Mexico, and enjoy to the full the 'Wild Life of an Alkaline Lake,' without quaking with cold in the blind of boughs, while hordes of water-fowl sweep through the air or splash about in the water; or we may watch, in the deep woods, with Mr. N. McClintock, the home life of the family of birds of which he made 'A Hermit Thrush Study,' and see the youngsters grow apace; or, with Miss C. J. Stanwood, we may examine, from day to day, the occupants of 'A Series of Nests of the Magnolia Warbler'; or, in the winter months, we may prefer to look through our glasses, with Mrs. H. W. Wright, upon 'Some Rare Wild Ducks Wintering at Boston, Mass., 1909–1910.'' All of these articles show careful observation, and supply much information concerning the life-histories of numerous species; and still another bit is furnished by Miss J. W. Sherman, who tells of nests and young of 'The Brewster's Warbler in Massachusetts.'

It is a pity to be obliged to pass over these delightful papers with such brief mention, for they show a rare blending of popular and scientific ornithology. Many readers may not know that the writer of the article on the Magnolia Warbler lives in Maine; there is no other clue given as to where the nests were found.

'Some Early Records of the Passenger Pigeon' is the title of a paper by Mr. A. H. Wright, who modestly states that they were "gathered as a by-product." We wish they had been quoted more often from original editions. Mr. A. H. Norton briefly records 'The Little Gull (*Larus minutus* Pall.) in Maine, with Remarks on its Distribution and its Occurrence in America.' This straggler from the Old World has been captured five times in the New. Mr. S. P. Fay writes on 'The Canvasback in Massachusetts,' where he thinks it is increasing in numbers; and Mr. A. H. Howell contributes 'Notes on the Birds of the Sunken Lands of Southeastern Missouri.'

No less than ten corrections of records are made in the 'General Notes' department. "A little knowledge is a dangerous thing," especially when we use opera-glasses. Among the reviews is one of the new A. O. U. Check-List of North American birds, the first complete enumeration since 1895, and the list is therefore a noteworthy landmark of faunal progress. There are also obituary notices of H. H. Giglioli and of W. E. D. Scott, the former, one of Italy's prominent zoölogists, the latter better known to most of us for his field work in many parts of our country. —J. D., Jr.

Bird - Lore

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Devoted to the Study and Protection of Birds
OFFICIAL ORGAN OF THE AUDUBON SOCIETIES
Edited by FRANK M. CHAPMAN
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Bird-Lore's Motto:
A Bird in the Bush is Worth Two in the Hand

EVERY one familiar with Mrs. Alice Hall Walter's success as a teacher of birds, in Chicago, in Rhode Island, and while in charge of the course in bird study at the Cold Spring Biological Laboratory, will feel that BIRD–LORE is to be congratulated on the addition of her name to its Editorial Staff for 1911. Mrs. Walter will aim to make BIRD–LORE increasingly valuable to teachers and their pupils by giving practical suggestions for methods and subjects of the study of our birds, and by securing their active coöperation in conducting her department.

Mrs. Wright, although resigning charge of the School Department, retains her editorial connection with BIRD–LORE, and every one interested in birds and gardens, as well as birds in gardens, will learn, with pleasant anticipations, that she will contribute to each number of BIRD–LORE for 1911 a paper on the birds of her garden. That Mrs. Wright's garden is a famous place for flowers has long been known, but that it is equally favored by birds, comparatively few are aware. Over forty different species have been found nesting there, and the editor can aver from personal experience that it is equally attractive to the transient visitant.

WE commend to our readers the annual reports of the National Association and State Audubon Societies contained in this issue of BIRD-LORE, confident that no one can read it attentively without being impressed by the character and importance of the work which the champions of birds throughout the country are doing. Fortunately we are now reaching a stage in the history of these Societies when, so to speak, we can begin to live on our income. While we may never hope wholly to vanquish the enemies of birds, we at least have them in check, and can now turn our forces toward the educational side of birds' relations to man, in order that he may reap the benefit of the heritage which has been saved for him.

If one may judge from the increasing frequency with which requests for information concerning bird-houses, feeding devices, and various other means of attracting birds, are received, the Societies have already aroused a wide-spread and personal interest, from which one may expect results of the highest value, not alone to birds but to man as well. To contribute to the funds of these Societies is in truth but meeting them part way, for such contributions are, or should be considered as investments from which one should expect fair return; and such return the birds themselves will make if we but give them half a chance.

To feel that certain birds are your tenants, that the presence of others is due wholly to your bounty, is to establish relations which forever after change the species to the individual. One may thus experience all the pleasures of companionship which we gain from association with captive birds, without feeling that we are playing the jailer.

A DOGWOOD tree, red with berries, beneath the editor's study window, which had been missed by the Robins, was discovered early in November by about half a dozen Hermit Thrushes. For them it contained more than a week's provisions; but, unfortunately, before they had made any visible decrease in the store, some fifty dusky-coated Starlings appeared, and within a day there were but few berries left. Here was a concrete illustration of competition over the food-supply the significance of which was all too apparent.

The Audubon Societies

SCHOOL DEPARTMENT

Edited by MABEL OSGOOD WRIGHT

Address all communications to the Editor of the School Department, National Association of Audubon Societies, 141 Broadway, New York City

A LITTLE CHRISTMAS SERMON FOR TEACHERS

IT has been the habit of recent years, when we wish to hold the attention of the farmer, or any one else who seems particularly keen about the material side of life, to plead for the bird from the side of its economic value. Of course, this side of the question is very important, as fixing the status of the bird as a citizen and a laborer in the republic, who is worthy of his hire, and, therefore, has a right to protection and a living.

It seems to me, however, that there is such a thing as pushing the economic side of the question too far; or perhaps it is better to say, sometimes in the wrong quarter and at the wrong season.

This is undoubtedly an age of marvelous material progress, but of inadequate intellectual and spiritual development. Should we not then boldly and without qualification plead for the birds through their ethical qualities of song and beauty? For is not beauty the visible form of the spiritual?

Not long ago, I was trying to convince a farmer, sufficiently of the new school to have many of the modern appliances of his craft, on the necessity of leaving nesting-places for birds in bushes, about his fences, and in odd corners; of the wisdom of reducing the number of barn-cats, putting out food in winter, and leaving a few shocks of buckwheat for the chance game birds that might stray up from the brush lots.

I was growing quite pleased with my own eloquence when a peculiar smile on my listener's face brought me to an abrupt stop. At first, I thought the man wished to ask a question, and then I read the curve of the eyebrows and twitching of the lip corners to mean an amused tolerance that quite quenched my ardor.

"Of course there's truth in what you say," he mused, "and government facts behind it; and yet no facts lie so loud as some of these same ones about birds. I don't allow shooting or nest-hunting on the farm, and never did before there was a law about it, so there are plenty of birds. All the same, if I just stood by and waited for them to do my chores of potato-bug picking, and hunting cutworms and spraying for currant and canker worms, and tree blight, I should be standing barefoot instead of in a good pair of boots.

"It isn't all because there are less birds, that the crops are bug-pestered to death; it's partly because more stuff is grown, and there is more cleared land and more disease and blight, as the soil gets old.

"Then, too, the bird don't always work on the square, as naturally they don't understand property rights and boundaries. They stay in the broken-down orchard across the way, and feed on grubs and weed-seeds all the fall and in early spring; but, when strawberries and cherries are ripe, my neighbor lacking such fruit, they come right down here.

"Come to facts; just you figure out how much insecticides my spoiled fruit would buy, and you will soon see that I don't owe those birds anything for their services. The mistake is, you bird folks are too hot-headed; you seem to think that because a critter's a bird it's got no faults, just as some folks think a policeman's always honest, and a minister's shed all his human nature."

I stood still, feeling entirely crushed, and presently I said: "I'm sorry that you feel as you do, because I was going to ask you to have one of our lectures, 'The Birds about Home,' at one of your Grange Meetings, and perhaps ask your neighbors to put up some Bluebird houses, now that so many of the old orchards where they nested have been cut down. But, of course, it's no use wasting words, if you don't care for birds."

"That's where you make the mistake," he said, laying a kindly, if heavy, hand on my shoulder. "You just happened to take hold of the wrong end, as far as I'm concerned. I do care for the poor little dickie birds; I set great store by them. Why it wouldn't seem like spring, in spite of the fall rye showing green and the swamp maple reddening, if the birds weren't here to sing sun-up and sun-down. I couldn't sit still, there in that long shed, to milk eight cows, and feel natural, without the Phœbe flying in and out overhead, or the Swallows darting over the pond, yonder.

"The Robins and Catbirds are darned pesky in some ways, but they do make chore time seem shorter, and the Crow Blackbirds are surely good company, walking along before and behind when I'm taking long up-hill furrows. Now, if you'd said, "I wish you'd lend a hand to help the dickie birds because they're pretty and friendly, and sing better hymns than a church choir, I'd have said 'Amen' right off.

"I can spray and pick off bugs, so can anybody; but no government reports, nor farmers' institutes, nor agricultural colleges, can tell how to make up for a bird's pretty ways and friendliness. So, if I was at your trade, I'd stick more to this end of it."

The farmer was right. Let us, without being maudlin, lay a little more stress on the uses of beauty and affection. A child should not value or gauge his father chiefly by the amount of money he brings home, nor should he be taught first to value a beautiful songster by its insect-eating capacity. Our standards, as a whole, are becoming pitifully, if necessarily, intensely material. Let us, therefore, dwell first upon the undeniable beauty and cheer of the birds of the air, and less upon their economic value. M. O. W.

BOB-WHITE

Order—GALLINÆ
Family—ODONTOPHORIDÆ
Genus—COLINUS
Species—VIRGINIANUS

BOB-WHITE

By EDWARD HOWE FORBUSH

The National Association of Audubon Societies
EDUCATIONAL LEAFLET NO. 47

The cheery interrogative call of Bob-white was one of the first distinctive sounds of the open field that, as a child, I knew and loved among the hills of New England. It was as well known as the morning carol of the Robin in the orchard, the drumming of the Ruffed Grouse in the woods, or the reiterated plaint of the Whip-poor-will on the moonlit door-stone. Bob-white was ever an optimist, for even if, as the farmers stoutly maintained, his call sometimes presaged a storm, the prophecy "*more wet*" was delivered in such a cheerful frame of mind, and in such a joyous, happy tone, as to make rain seem the most desirable thing in life.

Perhaps there is no bird to which the American people are more deeply indebted for esthetic and material benefits. He is the most democratic and ubiquitous of all our game birds. He is not a bird of desert, wilderness or mountain peak, that one must go far to seek. He is a bird of the home, the farm, garden and field; the friend and companion of mankind; a much-needed helper on the farm; a destroyer of insect pests and weeds. He is called Quail in the North and Partridge in the South, but he has named himself Bob-white.

Range

When America was first settled, Bob-white was found from Maine and southern Canada to the coast of the Gulf of Mexico. Being a sociable and domestic species, it followed settlement, and now inhabits suitable localities in much of the United States, from the Rocky mountains to the Atlantic. It has been introduced into the island of Jamaica and into South Dakota, Utah, Colorado, California, Oregon and Washington, and has flourished in most of these places. A smaller race inhabits southern Florida, another lives in Texas; while closely allied, but distinct species, occupy Arizona and Mexico.

Character

Bob-white is cheerful, active, industrious, brave (but quick to learn caution where caution is necessary), and good -natured, although, in the rivalries of the mating season, the males become quarrelsome. Both sexes are devoted parents, and the male often takes his place on the nest. In captivity, he has been known to hatch, brood and care for the young. The birds of a covey are very affectionate toward one another. They converse together in a variety of tender, low, twittering tones; sleep side by side in a circular group on the ground, with heads out; and, if scattered, soon begin to call and seek one another, and never rest until all the surviving members of their little company are together again.

Nest and Eggs

A mere cavity is hollowed from the soil under a bush or fence, or, if in the woods, under a decaying log. Sometimes the nest is made in a cotton row in the southern states. It is usually well lined and concealed with grass or stubble. If in the field or by the roadside, it is often placed within a thick tuft of grass, or under a shrub, being commonly covered and open at one side, somewhat like the Oven-bird's nest. If situated in the edge of the woods, it is made mainly of leaves, and the female, while laying, covers the eggs with leaves when she leaves the nest. If the nest is disrurbed by man or animals, she is likely to desert it; but Dr. Hatch found that when he removed the covering carefully *with forceps*, and replaced it just as he found it, the bird did not abandon its home.

From eight to eighteen eggs are deposited, and nests have been found with from thirty-two to thirty-seven eggs. These are probably the product of two females. The eggs are a brilliant, glossy white, sharply pointed at one end. They are packed closely in the nest with the points downward. There is evidence that sometimes two broods are reared in a season, but usually the so-called second brood is reared only when the first has been destroyed.

The Young

The young are hatched after about twenty-four days' incubation, and no birds are more precocious. They usually remain in the nest until the plumage has dried, but most observers agree that they are able to run about at once. Mrs. Mabel Osgood Wright saw one of three young hatch from the egg, when all immediately left the nest at the warning cry of the mother.

The tiny little ones resemble somewhat a diminutive young brown Leghorn chicken. On the least alarm, they squat close to the ground, where the eye can hardly detect them. The driver of my heavy farm team once saw a mother Quail fluttering in the road before him, and stopped for fear of crushing the young which were hiding in the road; but the wheels of the farm wagon had already killed two, which had steadfastly maintained their position in the deep rut until the wheels had passed over them.

Self Protection

This bird is an adept at concealment. A covey will squat on the ground and become practically invisible. Years ago in the South, I stood talking with a hunter, when my eye caught a slight movement on the ground, and there sat an entire flock of Bob-whites in a little circle, almost beneath my feet, and scarcely concealed by the scanty shrubbery. As the eye found them, they burst up between us with an explosive roar of wings like a "feathered bomb-shell," and went whirring away.

Habits

Bob-white seldom migrates except for short distances when in search of food; but there is considerable evidence that, at times, migrations of some length toward the South take place in the fall. This has never come within my observation, as all the coveys that I have watched have remained throughout the year in the same locality, unless exterminated by a severe winter or by the hunter. It is a well-known

fact that in the South a covey has been seen, year after year, in a favorite locality for more than a quarter of a century. There they increase so fast that they are able to maintain themselves for years, in spite of their numerous enemies; but in the North they succumb to the rigors of severe winters.

Bob-white feeds almost entirely on the ground, except when driven by deep snows to seek berries and seeds from the shrubbery. Feeding by preference in the open, the birds usually keep within a short distance of the cover afforded by thickets, swamps or rank grain. They usually sleep in the open, where flight in all directions is unobstructed.

Economic Value

Probably something like 400,000 sportsmen now go out from the cities of this country each year to hunt Bob-white. This bird has a cash value to the farmer and land-owner, for he can demand and obtain from the sportsman a fair price for the birds killed on his property. The annual Quail crop, if judiciously handled, is worth millions of dollars to the farmers of this country. In many cases, shooting rentals more than pay the taxes of the farm, without detracting in any way from its value for agricultural purposes. Bob-white pays the greatest part of the tax in many school districts, thus paying for the education of the children. Many thousands of dollars are spent in many states in leasing land and in holding field trials of dogs. In these trials no shooting is done, the dogs merely pointing the birds.

On the farm, Bob-white comes into closer contact with the crops, year after year, than any other bird, yet rarely appreciably injures any grain or fruit. Through the investigations of the Bureau of Biological Survey, of the United States Department of Agriculture, it is now well known that Bob-white ranks very high as a destroyer of many of the most destructive insect pests. Among those eaten are potato beetles, cucumber beetles, wire worms, weevils, including the Mexican cotton-boll weevil, locusts, grasshoppers, chinch bugs, squash bugs and caterpillars. Many of these insects are destroyed by scores and hundreds. Mrs. Margaret Morse Nice, of Clark University, gives the following as eaten by captive birds. Each number given represents the insects eaten during a single meal by one bird: Chinch bugs, 100; squash bugs, 12; plant-lice, 2,326; grasshoppers, 39; cutworms, 12; army worms, 12; mosquitos, 568; potato beetles, 101; white grubs, 8.

The following records are taken from a list which she gives to show the number of insects eaten by Bob-white in a day: Chrysanthemum black-flies, 5,000; flies, 1,350; rose-slugs, 1,286; miscellaneous insects, 700, of which 300 were grasshoppers; and insects, 1,532, of which 1,000 were grasshoppers. Mrs. Nice gives a list of 141 species of insects eaten by the Quail, nearly all of which are injurious, and Dr. C. F. Hodge remarks that a bird which eats so many injurious insects is welcome to the beneficial ones as well; for, apparently, if we could have enough Bob-whites, they would leave nothing for the useful insects to do.

As a destroyer of weeds, Bob-white stands preëminent. Mrs. Nice gives a list of 129 weeds, the seeds of which are eaten by this little gleaner. These seeds are digested and the germs thus destroyed. The number of seeds taken by one bird at a single meal varies from 105 seeds of stinkweed and 400 of pigweed to 5,000 of pigeon grass and 10,000 of lamb's quarters; while the number taken by one bird in a day varies from 600 of burdock to 30,000 of rabbit's-foot clover. Dr. Sylvester Judd, by a careful computation, reaches the conclusion that the Bob-whites of Virginia and North Carolina consume annually, from September 1 to April 30, 1,341 tons of weed seeds, and that from June 1 to August 31, they eat 340 tons of insects.

If we take as our measure the quantity of weed seeds and insects eaten by captive Quail, as given by Mrs. Nice, we find that a family consisting of two adult birds and ten young would consume 780,915 insects and 59,707,888 weed seeds in a year, in addition to their other food.

The annual loss due to insects in the United States now reaches one billion dollars, and the injury caused by weeds in this country is estimated at seventeen million dollars a year.

Methods of Protection and Propagation

Thus far, the principal method of protecting the Bob-white has been the passage of laws forbidding market-hunting, or export, restricting the shooting season to one or two months in the year, and limiting the number of birds that the sportsman is allowed to take. In the South, however, and in some localities in the North and West, the birds are protected and increased on preserves. Bob-white has been numerous for years in North Carolina, where the system of game-preserves has been brought to greater perfection than in any other part of the country. Guilford county alone has more than 15,000 acres on which this bird is protected, where gunning is so regulated, and the natural enemies are so controlled, that the birds maintain their numbers; but in the North something more than protection on game preserves will be necessary to multiply them. Their artificial production is an absolute necessity. Even in Audubon's time, Bob-white was reared successfully in confinement. Recent experiments show that Bob-white can be reared in captivity and absolutely domesticated. Dr. C. F. Hodge, of Clark University, at Worcester, Mass., has reared flocks of young birds under their parents, under hens, and with incubators, and has demonstrated that they may be given their liberty and will return to the hand when called. The Massachusetts Commissioners on Fisheries and Game have reared about four hundred Bob-whites in confinement, in 1910. They use incubators and brooders, as well as the natural method. This work, now in the experimental stage, requires only experience and a knowledge of the methods of controlling the diseases of these birds to make it practicable on a large scale. Eventually, it will be possible to raise Bob-whites in large numbers on game farms, and to keep a stock over winter in captivity, with which to replenish the coveys whenever severe winters deplete them.

The Audubon Societies

EXECUTIVE DEPARTMENT

Edited by WILLIAM DUTCHER

Address all correspondence, and send all remittances for dues and contributions to the National Association of Audubon Societies, 141 Broadway, New York City

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President Dutcher Ill

The many friends of President William Dutcher will regret to learn that he recently suffered a severe apoplectic stroke. This occurred at his home at Plainfield, New Jersey, on the morning of October 19. His right side was entirely paralyzed, and for many days he lay unconscious. At this writing, however, his physicians state that, as no second stroke has occurred, and no complications have arisen, there is a good chance for his recovery.—T. Gilbert Pearson.

Sixth Annual Meeting

The Sixth Annual Meeting of the National Association of Audubon Societies was held, according to anouncement, in the American Museum of Natural History, New York City, on October 25, 1910.

In the absence of President Dutcher, First Vice-President Dr. T. S. Palmer

presided. He announced that there had been one hundred and eighty applications for sustaining membership received during the past year; these persons were then elected.

All of the officers were re-elected, and the following were elected to the Board of Directors to fill the places of members whose terms had expired: T. Gilbert Pearson, F. A. Lucas, and W. W. Grant.

The members of the Advisory Board of Directors were re-elected, in addition to the following: Frank Bond, Gifford Pinchot, Clinton G. Abbott.

The Secretary and the Treasurer read their annual reports, which will be found elsewhere in this issue of Bird–Lore. The reports of Field Agents E. H. Forbush and William L. Finley were also presented.

At 8.00 o'clock P.M., Prof. John B. Watson, of Johns Hopkins University, gave an illustrated lecture on 'The Facilities Offered for the Study of Birds on the Dry Tortugas.'

New Audubon Societies

Mr. W. Scott Way, whose activity in the Audubon Work in California is well remembered, has recently changed his residence to Maryland. Here he has again gone to work for the wild birds. On October 3, 1910, he, with others whom he had interested in the subject, organized the Audubon Society of Talbot county, Maryland. They launched the Society with seventy adult members, and we shall expect to have good reports of the increase in size and usefulness of the new Society.

On November 5, 1910, there was organized at Memphis the East Tennessee Audubon Society, with Dr. R. B. Maury as President, and Miss Bessie Wilkinson as Secretary. Thirty-six teachers in the Memphis schools are enrolled among the members. The new Society has the active support of the Goodwyn Institute, as well as of the Superintendent of the City schools. It has already begun work, and, with the aid of the President of the Park Commission, has undertaken to have bird-boxes built and systematically placed in the city parks.—T. G. P.

A Word of Warning

The coming winter will see legislatures assemble in forty states on the Union. Probably more than ever before, the subject of game laws will come up for consideration. Attempts in a number of places will doubtless be made to repeal the present anti-spring shooting laws. It has often been the case that measures intended to protect migratory game birds have been enacted by bird protectionists without any great degree of opposition; but, when laws have become operative, many hunters, seeming to realize for the first time the extent to which their sport or marketing opportunities are curtailed, naturally denounce the new restrictions roundly, and begin earnest efforts to have the objectionable laws removed from the statute books. Then it is that believers in real game protection must be on their guard.

We are informed that already plans are being made by certain interested persons to have the New York Legislature repeal the Shea-White Plumage Law enacted last spring. Something of the extent to which this law is already affecting the millinery traffic in the plumage of wild birds may be gathered from a statement made to the writer by a representative of some of the wholesale millinery firms of Paris. During a recent conversation, he declared that the sales to American firms by the Paris fancy feather dealers had been virtually ruined by the New York law, not more than one-fourth the business being done the past year which had formerly existed. Every friend of the birds in the state of New York should be wide awake to the possibility of an attack on the plumage law, and should let their Assemblymen and Senators know where they stand on the matter.—T. G. P.

The Last Pigeon

Two years ago, it was generally supposed that only seven live Passenger Pigeons were in existence. Four of these were in Milwaukee, Wisconsin; the other three were in the Zoölogical Garden at Cincinnati. During the twelve months which followed, the four in Milwaukee died, as did also one of the Cincinnati birds. Under date of November 9th 1910, Mr. S. A. Stephan, General Manager of the Cincinnati Zoölogical Company, writes:

"As far as I know, the only two Wild Pigeons in existence last spring were in the Cincinnati Zoo, but in June the male died of old age. He was about twenty-two years old. The female that we still have left is now about eighteen years old. They were hatched in our cages here."

Visitors to Cincinnati today, therefore, have the privilege of seeing what is probably the last surviving member of that species of birds whose numbers were once the wonder of the ornithological world. Apropos to the passing of the pigeon, the following facts recently collected by Mr. E. H. Forbush, New England Agent of the National Association of Audubon Societies, will be of interest to some readers:

"Eighty tons of Passenger Pigeons were sent from one county in New York to the market in New York City in 1849, and at least 300 tons were dispatched from Petoskey, Michigan in 1878. Sullivan Cook states that there were caught and shipped in forty days from Hartford, Michigan, 11,880,000 pigeons. Also that in the two succeeding years one-third more than that number were shipped from Shelby, or 15,840,000 birds. When it is considered that this traffic went on wherever the pigeons appeared, and that they were slaughtered at all seasons, particularly while nesting, there is no mystery in the extinction of the Wild Pigeon."—T. G. P.

Cats and Petrels

Another evidence of the destructiveness of cats to wild-bird life has been furnished by Mr. Wilbur F. Smith, of South Norwalk Connecticut. During the height of the nesting season the past summer, he visited the island of No-Man's-Land, off the coast of Maine. There is here located a flourishing colony of Herring Gulls, which a warden of this Association has been guarding for some time. Writing of his observations there, Mr. Smith says:

"There is not a tree or a bush on the island, and very little soil. It is a bleak, rocky island, with the ocean stretching away to the shores of Europe, yet the Leach's Petrels chose it, to hide their burrows among the rocks and make it their home.

"We could not find an occupied nest; but plentiful remains of the birds were scattered about, and it was apparent that the birds had been destroyed.

"We passed close before one of the fishermen's, cabins and found the ground strewn with remains of Petrels, some freshly eaten. The fisherman told us that the cats caught them in the night and brought them to the house to eat. He said that they had three cats about the houses, and that there was one wild one on the island.

"The whole colony appeared to have been exterminated, and the man said he guessed it was a good thing; for the birds made a noise at night, and they also smelled strong."—T. G. P.

GROUND DOVE ON NEST
Photographed by W. L. Finley, at Tucson, Arizona

Annual Report of the National Association of Audubon Societies for 1910

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ADDRESS OF THE PRESIDENT

[The Annual Address, in which President Dutcher so earnestly and effectively summarized the work of the National Association for the preceding year, and so enthusiastically outlined its activities for the year to come, was in preparation at the time he was taken ill. It is hoped to present it in a later issue of Bird-Lore.]

REPORT OF SECRETARY

The growth of the Audubon work for the past year has been of a steady and healthful character. The sustaining membership of the National Association has shown a gain of forty-four, and ten new names have been added to the list of life members. Recently we undertook a census of the various state Audubon Societies, and, while the returns are not yet complete, it may be of interest to learn that the total adult membership of the State Audubon Societies is about eleven thousand, and the junior membership thirty-five thousand. The total amount of funds collected by these various state organizations was about $20,000.

The work of the National Association may be grouped briefly under the following heads:

First.—Endeavoring to secure better statutory protection for wild birds and animals by the enactment of new laws, and seeking to prevent legislation of an adverse character.

Second.—Preparing and publishing in Bird-Lore, and elsewhere, matter intended to increase public sentiment to the very great desirability of bird and wild-animal protection.

Third.—Aiding superintendents of schools, teachers and others, by means of leaflets, stereopticon slides, and encouragement, to give their pupils instruction in bird study.

Fourth.—Coöperating with the State Audubon Societies in their various undertakings, and giving assistance when needed.

Fifth.—Securing the establishment of federal, state and private bird preserves, and arranging, when possible, for warden service.

Sixth.—Keeping the subject of wild-bird and animal protection well before the people of the country, by means of public lectures and articles in the press.

Seventh.—Working to secure financial support, and properly investing the money received for the Endowment Fund; and

Eighth.—Conducting a heavy correspondence relative to these subjects and numerous coördinated matters.

During the year, your Board of Directors has held several meetings, at which they have outlined the policies of the Association and authorized the expenditure of the funds.

The President, as Chief Executive Officer, during the past year, has, as heretofore, supervised and directed the various divisions of the work. With him there have been associated the following persons, in addition to the Secretary of the Association, an office force of five, headed by Mr. B. S. Bowdish, and the following field-agents and lecturers: Mr. E. H. Forbush, in New England; Wm. L. Finley, on the Pacific coast; Miss Gretchen L. Libby, in California; Miss Katharine H. Stuart, in Virginia; James Henry Rice, Jr., in South Carolina; and Captain M. B. Davis, in Texas.

In guarding bird colonies, the Association has employed thirty-seven wardens during the year; one of these served without remuneration and three were paid in part by the government. These wardens are located in the following states, viz.: Florida, Louisiana, Maine, Massachusetts, Michigan, New Jersey, New York, Oregon and Virginia. The wardens report nominal increases in the bird colonies. Owing to the financial coöperation of the United States Department of Agriculture, the services of these wardens have cost us $363 less this year than last.

LEGISLATIVE WORK

The legislation which has particularly claimed the attention of the Association during the past year has been a continuation of previous efforts to suppress the traffic in the plumage of wild birds in New York state. A bill was prepared and introduced at the Legislature early in January, intended to restrict the sale of birds' feathers.

For four successive years, attempts have been made to secure the enactment of a statute which would meet these ends; but in every instance the opponents of the measure have been able to prevent favorable legislative action. During the past year a wide and systematic campaign was conducted by the National Association and the New York State Audubon Society in every county of the state. This educational effort at length so thoroughly aroused public interest that the legislature became aware that the people were strongly for the bill and demanded its passage. For the first time, the Forest, Fish and Game Commissioner was thoroughly in sympathy with the effort, and this added great strength to the cause.

Those dealers in millinery supplies whose business would be affected by the passage of this bill were naturally very active in their opposition, and it is generally understood that they provided large sums of money to employ able counsel to defeat the measure. They also maintained a lobbyist at Albany during most of the session of the legislature. After a most prolonged and strenuous fight, the law was finally enacted. It reads as follows:

"Sec. 98. Certain wild birds protected. Wild birds other than the English Sparrow, Crow, Hawk, Crow Blackbird, Snow Owl, Great-horned Owl and Kingfisher, shall not be taken or possessed at any time, dead or alive, except under the authority of a certificate issued under this chapter. No part of the plumage, skin or body of any bird protected by this section, or of any birds coming from without the state, whether belonging to the same *or* different species from that native to the state of New York, provided such birds belong to the same family as those protected by this chapter, shall be sold or had in possession for sale. The provision of this section shall not apply to game birds for which an open season is provided in this chapter, excepting that Quail, English Pheasants and Hungarian Partridges shall not be taken at any time to Richmond county prior to the year nineteen hundred and fourteen.

"Section two hundred and forty of said act is hereby amended by adding a new subdivision to said section, to be known as subdivision eighteen thereof, and to read as follows:

"18. Plumage includes any part of the feathers, head, wings or tail of any bird, and wherever the word occurs in this chapter reference is had equally to plumage of birds coming from without the state as to that obtained within the state; but it shall not be construed to apply to the feathers of Birds of Paradise, Ostriches, domestic fowl, or domestic Pigeons."

Some time after the passage of this law, certain of the large millinery interests, through their attorney, requested the attorney of the Forest, Fish and Game Department to advise them regarding what plumage of birds they could use in their business in future, and what was prohibited. They sent with this request about one hundred specimens for examination. The department employed as expert ornithologist, Mr. Waldron DeWitt Miller, of the American Museum of Natural History, to pass on the material forwarded. It was found that, excluding duplicates, the plumage of seventy-nine birds which are today used in the millinery trade in New York had been submitted. Mr. Miller reported that, under the provisions of the law, forty-three species of birds were represented the plumage of which could not legally be sold. Among these were the Green Heron, two species of Night Heron, the Screech Owl, Skylark, Sooty, Noddy and White Terns, Pelican, Scarlet Ibis, Snow-Bunting, Bohemian Wax-wing, Swift, Magpie, Condor and Jay. Among the thirty-six species which he found that could be legally handled, were the Kingfisher, certain of the Sandpipers, Plovers, Paroquet, Partridge, Fruit Pigeon, Pheasants, Grouse, Oriole (*Oriolus*), Blue-backed Manakin, Black-Cock, Capercailzie, Rhea, Snowy Owl, Trogon, Macaws and the Glossy Starling.

A bill similar to the one passed in New York was introduced, at the instance of the Audubon Society, in the Legislature of New Jersey. It passed the House but was defeated in the Senate; owing, in part, to lack of crystallization of effort on the part of the bird protectors of that state, and in part to active opposition by the millinery interests.

A bill for the establishment of a Game Commission, supported by a resident hunter's license tax, likewise failed in Georgia, after having passed the House. This Association was represented there by Mr. Shepard Bryan, of Atlanta. In Louisiana, by the strenuous efforts of Mr. Frank M. Miller, President of the Game Commission and formerly President of the Louisiana Audubon Society, the fierce attacks made with a view of destroying the Game Commission were defeated, and his department enlarged to include the fish and shell-fish interests of the state. Very unfortunately, however, the legislature, in spite of the efforts of this Association, amended the existing Audubon law by providing an open season for killing Robins. The statute, however, limits the number which a person may have in possession at one time, which virtually prohibits the sale and, therefore, greatly restricts the killing.

The legislative situation in New England was much strengthened. The changes made in the laws were of beneficial character. Bird legislation tends to oscillate. The protectionists make a gain one year, and then frequently their opponents organize the succeeding year, and unless strenuous efforts are made to retain the law the pendulum of legislation swings back. The enemies of bird protection in Massachusetts are now better organized than ever before, and have put the Association on the defensive. For this reason, more time and energy than usual were expended the past year in maintaining the

present protective statutes, and less in attempts to improve them. The details of the work there will be found in the report submitted by Field Agent Forbush.

PUBLICATIONS

During the year, seven leaflets have been issued: Special No. 22, Announcement to Southern Teachers; and the following Educational Leaflets: No. 41, Mockingbird; No. 42, Orchard Oriole; No. 43, Red-headed Woodpecker; No. No. 44, Franklin's Gull; No. 45, Black-headed Grosbeak; No. 46, The Robin. The total number of copies printed was 242,000. A large amount of matter has been prepared for BIRD-LORE, and many thousands of our notices have appeared in the newspapers of the United States. The Game Wardens have been supplied with books containing colored illustrations and descriptions of birds, intended to aid them in gaining more accurate knowledge of the bird life of the regions which they guard.

THE MARY DUTCHER MEMORIAL FUND

During the month of June, one of our members, Mr. W. W. Grant, feeling that the friends of Mr. Dutcher would be glad of an opportunity to give tangible expression of the esteem in which he and his work for bird protection are held, held a conference with some others of like mind. As a result an invitation was issued asking for contributions for the establishment of a special endowment fund for the National Association of Audubon Societies, which should be known as the Mary Dutcher Memorial Fund, in memory of Mr. Dutcher's only daughter. The responses were spontaneous and generous, $7,548 net having already been received. It is proposed that the interest on this fund be expended in such manner that definite results on the work carried on under it can be reported annually.

THE SAGE FUND

Some months ago, Mrs. Russell Sage gave to the National Association $500, to start a special fund for the protection of the Robin. A few days later she contributed $5,000, to be used in pushing the work of the Association in the southern states, and, at the same time, expressed her deep concern that the Robin, which is legally declared a game bird in some of the states, should be given adequate protection. As Mrs. Sage further states that she will provide $5,000 annually for the next two years, it means that the Association will be able to institute and conduct a vigorous campaign for bird protection over a large territory, heretofore but scantily reached.

By these munificent contributions to the work of saving the wild birds of America, Mrs. Sage has won the gratitude of untold thousands of bird- and nature-lovers throughout the country.

In planning the expenditure of this fund, it was thought best to follow these lines of action:

First.—The employment of field-agents and lecturers.

Second.—Educational effort by the wide distribution of literature, particularly in reference to the Robin.

Third.—Warden work in providing protection for breeding colonies of birds.

We have already placed in the field Mr. James Henry Rice, Jr., of South Carolina; Miss Katharine H. Stuart, of Virginia; and Captain M. B. Davis, in Texas. We hope shortly to employ at least one additional agent in the South.

The following proposition has been recently made to the teachers of the southern states, and we confidently expect that, during the year, a large number of them will take advantage of it.

"Through the generosity of Mrs. Russell Sage, the National Association of Audubon Societies is at present able to make the following offer of assistance to those teachers in the southern states who are interested in giving instruction to pupils on the subject of bird study.

JUNIOR AUDUBON CLASSES

"To form a Junior Audubon class for bird study, a teacher should explain to the pupils of her grade (and others if desired) that their object will be to learn all they can about the wild birds, and that every one who becomes a member will be expected to be kind to the birds and protect them. Each pupil will be required to pay a fee of ten cents each year. When ten or more have paid their fees, the teacher will send their money to the southern office of the Association, Greensboro, N. C., and give the name of the Audubon class and her own name and address. The Association will then forward to the teacher, for each pupil whose fee has been paid, the beautiful Mockingbird 'Audubon Button,' and a set of ten colored pictures, together with outline drawings and leaflets. The teacher will also receive free of cost the magazine Bird-Lore, which contains many suggestions for teachers. It will be expected that the teacher give at least one lesson a month on the subject of birds, for which purpose she will find the leaflets of great value as a basis for the lessons."

With this announcement, there have been mailed copies of leaflets, colored pictures of birds, and a sample Mockingbird Audubon button.

The Robin Leaflet was prepared with the southern work especially in mind, and its wide distribution in the schools and among the farmers of the southern states is contemplated.

WORK OF THE SECRETARY

The office duties of the Secretary have been conducted chiefly from the southern office in Greensboro, North Carolina; although at intervals, particularly during the absence of Mr. Dutcher in Europe, it was necessary for him

to be in New York. He has directed the efforts of the fifty-seven game wardens of the North Carolina state Society, through whose efforts 153 convictions were secured in the courts for violations of the bird and game protective laws. His main work in the field has been in connection with the passage of the Shea Plumage Bill by the New York Legislature. From January 4 until May 6, his time was largely occupied with matters at the state capitol at Albany. He interviewed frequently many of the members of both branches of the legislature, and spoke at the committee hearings and the hearing before Governor Hughes. During this period, he also gave fifteen public lectures in the state, with a view of securing still further support for the passage of the measure. In the interests of pending legislation, he also visited the legislatures of New Jersey, Georgia and Mississippi.

In February he spoke at the meeting of the National Association of State Game Wardens and Commissioners, at New Orleans, of which organization he has the honor of being the president. In July he conducted a class in bird study at the Summer School of the South, in Knoxville, Tennessee, and gave four illustrated public lectures on the work of the Association. Since that time the Audubon work has been revived in Tennessee by the formation at Knoxville of the East Tennessee Audubon Society, with Mr. H. Tullson as president. Among other addresses delivered were those at the dinner given in honor of Commander Peary, in New York City, by the Canadian Camp Fire Club; the Congress of the Daughters of American Revolution, at Washington, D. C.; the National Farmers' Congress, at Raleigh, North Carolina; the annual dinner of the Montclair, New Jersey, Game Protective Association; and the meetings of the State Sportsmen's Associations of New York, Connecticut and Michigan.

FEDERAL CONTROL OF MIGRATORY BIRDS

The question which will doubtless be given very serious consideration in the near future is that of placing the protection of all migratory birds in the United States under federal control.

The Weeks' Bill, now pending in Congress, contemplates such action. By its provisions, the United States Department of Agriculture would have authority to make rules regulating the killing and disposition of all migratory birds. The present widely differing state laws give these birds woefully inadequate protection, and centralized control seems to be absolutely necessary if our migratory game-birds and song-birds are to be preserved for the benefit and enjoyment of future generations.

President Dutcher has stood squarely and emphatically for the principle involved since its first suggestion. During the year, we have been active in promulgating arguments favoring its adoption, and in securing commendatory resolutions from representative bodies. Thousands of letters and documents have been mailed from the New York office on the subject. It is worthy

of mention that National Association of Fish and Game Commissioners, representing twenty states, while in convention at New Orleans, in February, 1910, adopted a strong resolution endorsing the plan. These were the men who are officially charged with the protection of the birds and game of our several states, and their opinions on the subject, therefore, necessarily carry much weight.

At the National Conservation Congress, held in St. Paul, Minnesota, September 5–8, 1910, your Secretary had the pleasure of being a member of the Committee on Platform. There is no non-political organization in the country today, working solely for the public good, which has greater influence than the National Conservation Commission. Its approval of this subject was, therefore, of the first importance. Your Secretary introduced the following resolution, which was adopted as a plank in the platform of the Congress: "We recommend that the Federal Government conserve migratory birds and wild-game animals."

This was accomplished, despite the fact that there was bitter opposition present. This Association was also officially represented at this Congress by Mr. W. W. Grant, of New York, Prof. D. Lange, of Minnesota, and Mr. Frank M. Chapman, of New York. One entire evening session was devoted to an illustrated lecture given by Mr. Chapman on the "Conservation of Birds."

At the close of the Congress, the Secretary visited the game-protective officials, and others in the Canadian provinces of Manitoba and Ontario, to discuss the possibility of extending still further protection to our migratory birds in those regions. It is a matter of common knowledge that many birds, especially the Ducks and Geese in which there is such large commerical interests, rear their young in Canada, and, upon the approach of winter, come to the United States. Many pass on to Mexico and South America. It is quite apparent, therefore, that Canada, the United States, Mexico and South America must, for the preservation of these birds, legislate coöperatively, and with a full understanding of the habits of the birds.

PRESIDENT DUTCHER

President Dutcher, as heretofore, has directed the work of the Association from the New York office, not only developing its various policies, but exercising close supervision over manifold activities, not with financial aid, for he has had comparatively little money to work with, but by the strength of his will power, his enthusiasm, his rare judgment of men, and his sterling character.

For weeks and months he has worked with infinite pains over the thousand details which came before him. During the past year he rarely left the office, his few trips being to the Legislatures of New York, New Jersey and Virginia, until May, when he sailed for Europe, to attend the meeting of the Fifth International Ornithological Congress, which assembled in Berlin on May 30.

At this Congress he presented two papers, entitled "The History of the Audubon Bird Protection Movement in North America" and "Some Reasons Why International Bird Protection Is Necessary." His influence was potent, as usual, in bringing the subject of commercial bird destruction prominently before the Congress, and his views were strongly endorsed by the Convention. His plan for the formation of an International Committee for the Protection of Birds was adopted, and he was appointed one of its members. The following countries are represented on this Committee, viz: Austria, Bavaria, Belgium, Denmark, France, Germany, Great Britain, Holland, Hungary, Italy, Norway, Russia, Sweden and the United States. While abroad, he visited several prominent bird protectionists, and formed the acquaintance of many who are interested in the work of bird preservation in Europe.

CONCLUSION

In compiling a brief annual report of this character, it is impossible to mention by name all those who have aided so splendidly the work of this Association the past year. To do so would entail a long list of officers of State Audubon and game-protective societies, the Humane Society, various members of legislative bodies, and many others, as well as all those who by their membership fees and contributions have furnished valuable aid, without which the work would have been much curtailed. Those who were engaged in securing plumage legislation at Albany, the past winter, will long remember the great assistance rendered by Mr. A. S. Houghton and other members of the Camp Fire Club of America. The members of our Board of Directors have frequently left their other duties for the consideration of Association matters which came before them. The Treasurer, Dr. Jonathan Dwight, Jr., has given much personal attention to the finances, while there is no one to whom President Dutcher has turned more frequently for support, or whose advice has meant more to him than our First Vice-president, Dr. T. S. Palmer, Assistant Chief of the United States Biological Survey.

The splendid development of the work of the Audubon movement during the past seven years is only an earnest of what we may reasonably hope for in the years to come.—T. Gilbert Pearson, *Secretary.*

REPORTS OF FIELD AGENTS

REPORT OF EDWARD HOWE FORBUSH

Your agent for New England finds the work in this region continually growing and increasing, demanding more and more time and strength.

EDUCATIONAL WORK

The educational work of the year has consisted (1) in a series of newspaper articles, continued from last year, which have been published in about one hundred New England newspapers. For the past eight months, most of these articles have been devoted to the protection of game in New England. This series will be finished within the next three months. (2) A large correspondence has been maintained with teachers who are interested in introducing bird work in the schools. The building of bird-houses by children in the manual-training schools is growing more popular. (3) The demand for lectures is greater than ever, and, if this demand were fully supplied, it would require the entire time of one man in Massachusetts alone. Your agent has been able to give forty lectures during the year before schools, farmers' and sportsmen's organizations, Audubon Societies, and Women's clubs mainly, in Massachusetts, Connecticut, New Hampshire and New Jersey. The audiences aggregated altogether about 14,000 people. These lectures were all illustrated by lantern slides or charts.

LAW ENFORCEMENT

There have been many complaints, particularly in Massachusetts, in regard to the non-enforcement of the laws protecting game and birds. Your agent has called the attention of the law officers to many such complaints, and has done a good deal of educational work among the law-breaking gunners.

The hunters' license law, which went into effect a year ago, has greatly reduced the number of foreigners who hunt openly with guns, for very few of them have taken out licenses. Probably this law kept about twenty thousand such hunters out of the woods during the first year. Now, however, complaints are coming in that many foreigners, particularly Italians, are using bird-lime or snares, and hunting birds with cane guns and other weapons which they can conceal about their persons. Game wardens are too few in number, and sometimes too inactive. What is needed now is effective enforcement of the laws.

LEGISLATIVE WORK

During the legislative season of 1910, only two legislatures, those of Massachusetts and Rhode Island, were in session in New England, but the enemies of bird protection were rampant, and a great number of bills inimical to bird and game protection were introduced into the Massachusetts Legislature, some of which were pushed by their advocates with an energy and persistency worthy of a better cause. On the whole, the fight in the Massachusetts House and Senate was perhaps the most strenuous that the bird protectionists of this state have had to encounter. They were put upon the defensive.

Six bills were introduced, to provide a longer open season for wild-fowl, or to change the law in some way advantageous to certain interests.

The present law protects all wild fowl from January 1, to September 15, and prohibits their sale during the close season. The bills introduced either removed all protection or lengthened the season or the period of sale. After a long and bitter fight, they were all defeated.

Several attempts to secure special privileges were defeated. The first of these was House Bill, No. 324, the intent of which was to convey to a private firm or corporation a state pond entitled Benson's Pond in the town of Middleboro. As this pond is a shallow and grassy spring-hole, where Ducks feed and breed, the bill was strongly opposed on the ground that to give or sell it to private parties would establish a precedent under which all ponds of that character in the Commonwealth might be so taken. The bill was finally redrawn by the Committee on Harbors and Public lands, and now, as House Bill No. 1551, it refers the whole matter to the Harbor and Land Commissioners for investigation. They will report their findings to the legislature in 1911.

No attempt was made this year to secure the right to shoot Ducks and Gulls on the Metropolitan Park System, as the state authorities have placed men in motor-boats on these ponds to drive the birds out, but a bill (House Bill No. 652) was introduced to allow citizens of Massachusetts to hunt, subject to the game laws, on lands under the control of the Metropolitan Water and Sewerage Board. This bill, if enacted, would have opened up large tracts of land to hunters, and would have given them an opportunity to shoot Ducks on the shores of certain reservoirs. It was strongly opposed before the Committee on Metropolitan affairs, who reported against it, and the report was accepted by the House and Senate. Under an act passed in 1909, all public lands in Massachusetts were made perpetual sanctuaries or reservations for birds and game. The defeat of House Bill No. 652 preserved the integrity of this act.

Some constructive legislation was enacted. A bill was passed to provide for the preparing and printing of a special report on the game-birds, wild-fowl and shore-birds of the Commonwealth, to be prepared by the State Ornithologist. Another extends the close season on Upland Plover until July,

1915; and still another provides for the better enforcement of the law by establishing six additional salaried deputy Fish and Game Commissioners or Game Wardens.

Among the protective bills defeated were two to establish state sanctuaries or reservations for the protection of birds and game; one providing for the perpetual protection of small shore-birds; another giving protection to sea-birds, and another prohibiting the killing of Loons in spring. Two bills intended to prohibit the use of live decoys in wild-fowl shooting were reported unfavorably by the Committee on Fisheries and Game, and the report was accepted by the House and Senate.

There was a large number of other bird and game bills that cannot be recorded in the limited space allowed for this report. The legislative work on all these matters, so briefly mentioned here, continued about five months. Your agent wishes to acknowledge the prompt and efficient assistance given by many friends of the birds. Mrs. Francis B. Hornbrooke, Chairman of the Bird Committee of the Conservation Department of the Massachusetts Federation of Women's Clubs, did excellent work among the Women's Clubs of the state. Dr. Frederick T. Lewis, a member of the Committee on Bird Protection of the Boston Society of Natural History, appeared before the legislative committees and otherwise did very telling work. The Directors of the Massachusetts Audubon Society, its secretary and many members, gave most cordial assistance. The Committee on Bird Protection of the State Grange, Patrons of Husbandry, consisting of Charles H. Rice, Chairman; Mrs. E. O. Marshall, Secretary; Joseph Mason, F. W. Chase and Mrs. Frank S. Walker, were very active throughout this campaign, and did most active work among the members of the grange, thus bringing influence to bear on the country members of the Legislature. Great credit is due to the Secretary for her untiring and well-directed activities.

William R. Sears, Esq., the Honorable Herbert Parker, and Mr. Edward L. Parker, assisted the campaign in every way possible. Edward N. Goding, Esq., worked "without ceasing;" James A. Lowell, Esq., acted as legislative counsel for the National Association and was unsparing in his efforts. So many people and organizations were associated in this campaign that it is impossible to name them here, but all deserve our heartfelt thanks.

Your agent, in consultation with the Directors of the Audubon Society of Rhode Island, drew up an anti-spring-shooting bill for presentation to the Legislature of that state, but for some reason the Committee in charge of the matter did not present the bill and no effort was made in Rhode Island to prohibit the spring shooting of wild-fowl this year. Several minor bills antagonistic to protection were defeated, and no material change in the bird and game laws was made in Rhode Island.

As one result of the campaign in Connecticut, in 1909, a State Ornithologist has been appointed, and Herbert K. Job is the first incumbent of

the office. This final culmination of the attempt to secure a State Ornithologist in Connecticut is encouraging. Mr. Job has been appointed a member of the Faculty of the Connecticut State Agricultural College, and is doing public work by publishing a series of articles in the newspapers of Connecticut, which cannot fail to do much good in educating the people in regard to bird protection.

REPORT OF WILLIAM L. FINLEY

During the past spring and summer, as your agent, I made a study of bird-life in Arizona. Here I found a situation that parallels in its heartlessness the slaughter of Herons in the nesting colony. There is absolutely no protection for Doves at any season of the year in Arizona. I found nesting about Tucson, the Mourning, White-winged, Inca and Mexican Ground Doves. In the early spring I saw hunters in the field shooting these different Doves. As summer advanced and more Doves arrived from the South, the number of hunters increased. In May and June, when the young were hatching and being fed, the shooting continued. Every day I saw hunters in the field. The Doves flock in toward evening from the desert regions to a few places where they can get water, and here they are regularly shot. One Sunday in June we counted seventeen hunters at a place called the Nine-mile Water-hole south of Tucson. A hunter often bags as high as fifty or sixty birds a day.

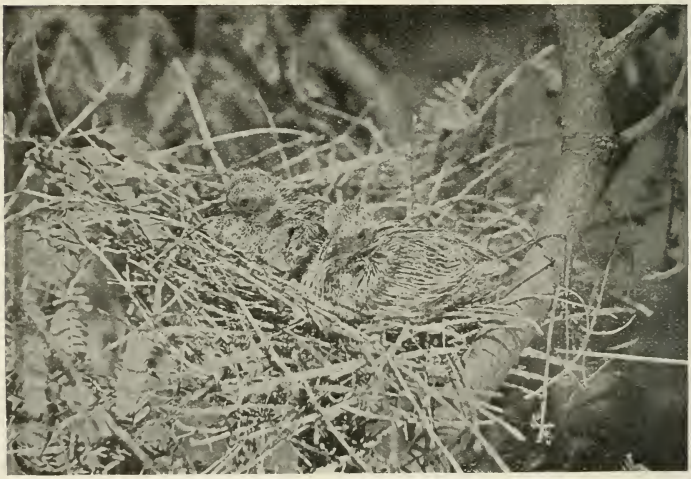
This slaughter at the water holes is carried on, not only by boys and Mexicans, but by many men prominent in business life. One of these told me he did not realize the birds were nesting, and another man complained that Doves destroyed too much grain. I looked over a string of sixteen that a Mexican was carrying, and found several birds with bare breasts, showing they were either incubating eggs or feeding young.

Without the enactment of laws and without educational work, we may soon have a Passenger Pigeon parallel in the Southwest. The Arizona Audubon Society, however, will make a strong attempt to secure protection for Doves at the next session of the legislature. I should regard the accomplishment of such a step as one of the most important features of wild-bird protection in the Southwest.

As an industry, the raising of different varieties of fruits along the Pacific coast is constantly growing in importance, and objection to certain birds continues to be heard. It is exceedingly important that we continue to make economic studies concerning the usefulness of wild birds to the farming community. It is most important that a thorough campaign be waged among farmers and fruit-growers to show the economic value of birds.

The Meadowlark, Red-winged Blackbird, and one or two others, have been doing some damage to crops in different parts of California. It seems more than likely that at the next legislative session another attempt will be made

DESERT SPARROW FEEDING YOUNG



YOUNG WHITE-WINGED DOVES IN NEST
Photographed by W. L. Finley at Tucson, Arizona

to remove all protection from these birds. To forestall such action, I have recently addressed a number of farmers' institutes in the Sacramento valley, as well as general audiences and bodies of school children. During February and March I gave twelve stereopticon lectures in California.

In conjunction with the College of Agriculture of the University of California, we are now preparing to arrange for a bird exhibit on the demonstration train which is sent out under the auspices of that institution and the Southern Pacific Railroad. The National Association will be allowed a third or half of one of the cars, and we shall arrange for a lecturer to go with the exhibit. By visiting every small town or railroad station in the state, and coming in contact with from sixty to eighty thousand people through the farming and fruit-growing sections, a vast amount of good can be done.

During the latter part of June, in conjunction with the work of the Biological Survey, I visited the Salt River Reservation, in Arizona, and the Rio Grande and Carlsbad Reservations, in New Mexico. These are three of the seventeen reservoir sites that were set aside as bird reserves on February 25, 1909. These places are sure to be of great importance in future years in the saving of our wild fowl.

To one who has traveled through the great arid stretches of Arizona and New Mexico, it is easy to imagine the importance of having a large body of water such as is stored up by the Roosevelt dam in the Salt River project. Here is a great basin of water about twenty-five miles in length, where the wild fowl gather in great numbers to spend the winter. Just across the Mexican border, no legal protection is given them. Already such birds as Herons, Killdeer, Avocets and Coots are breeding on these reservoirs, and their numbers will doubtless increase.

After visiting several of the largest cities in the Pacific coast region, and making an extended investigation of different millinery stores, I made only three arrests the past year for the illegal selling of aigrettes. One of these was in Portland and two were in San Francisco. Two of the parties were fined, while the other was allowed to go with a reprimand. Not only has the selling of plumage of our native birds ceased in the Pacific coast cities, but comparatively few aigrettes are now seen. Even on the streets, one sees but few in comparison to the numbers worn a few years ago.

Recently I consulted the Secretary of the Board of Regents of the University of California, and found that he favors giving birds proper protection on land owned by the University. The Regents have a number of estates, some of them containing thousands of acres, and these would make valuable bird reserves if the arrangements can be completed.

Our Audubon work in this territory has been conducted in conjunction with the state authorities for the protection of game. Mr. Babcock, Chief Deputy of the Fish and Game Commission, has offered to help financially in making a campaign for the better protection of wild birds.

REPORT OF MISS GRETCHEN L. LIBBY

During the past year, the work of your California Field Agent and School Secretary was limited to the southern part of the state, it being deemed wiser to work thoroughly one section of the state rather than try to cover a large territory superficially.

Two hundred and thirty talks and lectures were given on the habits and value of birds, and means of attracting and protecting them. Among the organizations addressed were teachers' and farmers' institutes, clubs, junior and senior Audubon Societies, schools, library and parent-teachers' associations and the State School Superintendents' Convention. Twenty-five different towns and cities were visited, the combined audiences numbering about fourteen thousand persons. Many of the state and national Educational Leaflets and copies of bird laws were distributed. The valuable information which they contain has done much to spread a knowledge concerning the importance of bird life.

A booklet entitled "Lessons on Some of our Common Birds" was prepared by your agent for one of the county school superintendents, and this resulted in an added interest in bird study. Many teachers were also provided with a list of bird books and other helpful material, and an outline for the study of birds.

Recognizing the importance of educating the boys and girls, my work as School Secretary has been most strongly emphasized. The systematic study of birds in the schools cannot fail to prove of real value, for in most cases the destruction of bird life by children is due to lack of knowledge. Once convince the boy of the important relation which birds bear to our every-day life, and he will change from one of their worst enemies to one of their best friends. In many cases, through the children we are also educating the men and women, for the child tells his parents of the thing that interests him in school.

The plan has been to reach each school, if possible, in the towns and cities visited. As a result of the talks given, forty-six new Junior Audubon Societies were organized, making the total junior membership for the state 3,135. The enthusiasm with which the children responded to the work, and the hearty support and coöperation of teachers and superintendents, were very encouraging, and cannot fail to bring success to this branch of our work.

Interesting reports were received from Junior Societies, telling of the changed attitude of the children toward bird life, and of the practical work which they are trying to do for bird protection.

The results of teaching children the value of bird life cannot be overestimated, for the protection of our birds in the future must depend upon the youth of today, our future agriculturists and law-makers.

REPORT OF MISS KATHARINE H. STUART

The revival of Audubon work in the state of Virginia began four years ago in the historic city of Alexandria. This interest was aroused by one or two articles published in the Alexandria "Gazette" on the Purple Martins, birds which had been useful citizens for generations but whose real value was not known to our people. The small colonies at that time numbered about five, and lived in very rough and ordinary homes, but today one can count fifteen or more pretty homes in the gardens of our best citizens. At the meeting of the Federation of Women's Clubs of Virginia, held in our city, it was my privilege to bring before that body the importance of preserving our "wild life," and, after much discussion, the clubs decided to take up the work and, if possible, to organize a Virginia State Audubon Society in Richmond, close to the legislative body of the state. To organize and set on foot a great movement in a conservative state, such as the Old Dominion, is no easy matter, and must take time, great patience and calm judgment, to overcome traditions handed down for generations. I say this to encourage those struggling in other parts of our great country to better conditions that have existed for years.

As Chairman of the Conservation Committee, Virginia Federation of Clubs, I was invited to address the largest and most influential club in the state on "The Utility of Birds." The Women's Club of Richmond is essentially social and does not take part in any outside work, but gives its own voice and aid through individual members. Soon after the address was given, an organization was effected and Mrs. Moses D. Hoge chosen as president. The work has grown steadily under her direction and that of her co-workers. Distinguished lecturers have been invited to our state, and have given much pleasure to large audiences; among them, Mr. Frank M. Chapman, Prof. T. Gilbert Pearson, Dr. Theodore S. Palmer, Mr. Henry Oldys, Dr. Smythe, of Virginia, and our beloved President, Mr. William Dutcher, who addressed the Virginia legislature.

Many Junior Clubs have been organized in the schools of our cities and rural districts, where drawings and compositions have increased the interest in bird life. The fourth of May, Audubon's birthday, was quietly observed in many parts of the state. Audubon exhibits at the State Fair held in Richmond have attracted wide attention,—the exhibit consisting of groups of birds, their nests and eggs all beautifully arranged in trees, giving a most pleasing effect. Thousands visited the booth and received the leaflets, game laws and posters sent out by the Association. The leaders of the Richmond social world were in charge, and gave their time and strength to this most important work. In many of our cities, and in the rural districts, hundreds of bird-boxes have been put up and the winter feeding of birds undertaken. It will be interesting to hear that I found, in a visit to New Kent, that the Pamunkie Indians,

the tribe made celebrated in the history of our country by the story of Pocahontas and Powhatan, are friends of the Purple Martins, and put up homes on their reservation to attract them.

During the coming year, the outline of work in Virginia will be the formation of Junior Clubs in the schools, and in getting scholars and teachers to unite in a protest against the killing of Robins and Doves in Virginia, and an effort to get the fourth of May observed as Bird and Arbor Day; the strengthening of the Virginia State Society by local branches, and securing a secretary in each county to stir up greater interest in our work. Talks and illustrated lectures will be given where practicable before clubs, chapters of the Daughters of the American Revolution, and other bodies, and no opportunity will be lost to impress upon our people the importance of better laws and a proper game-warden system, and, above all things, the necessity of a game commissioner to be established by our next legislature.

REPORT OF ARTHUR C. BENT ON THE BRETON ISLAND RESERVATION

In the schooner Julia L., with Warden W. M. Sprinkle, I spent eight days, from June 16–24, 1910, inclusive, exploring the Breton Island Reservation, and, with the help of Captain Sprinkle's thorough knowledge of the region under his charge, I gained a very fair idea of the condition of the various bird colonies. Sailing south-southeast from Cat island, we landed first on Freemason's Key, where we found shore-birds quite plentiful on the long strip of high oyster-shell beach, which forms the southwestern extremity of the island, enclosing a salt marsh and mud flat; a flock of fifteen Dowitchers and two Turnstones were undoubtedly loiterers; but numerous Wilson's Plovers, three pairs of Willets, and a pair of Oyster-catchers, apparently had young in the vicinity, as they were on suitable breeding-grounds and appeared solicitous. A few Least Terns, perhaps a dozen pairs, had evidently been breeding at the extremity of the beach. Laughing Gulls were common and a few Royal Terns and Black Skimmers were seen but the latter were not breeding.

At the south end of Errol island, on the broad sandy beaches and sand-flats, we saw large numbers of Brown Pelicans, Royal Terns, Black Terns, Laughing Gulls and Wilson's Plovers; also a few Cabot's Terns, Common Terns, Least Terns, Man-o'-war-birds, and two small flocks of Black-bellied Plovers. We could find no breeding colonies on this island, and concluded that the birds were merely feeding here. We noticed several places where raccoons had dug out turtles' eggs, which was enough to account for the absence of bird colonies.

The only breeding colony of Royal and Cabot's Terns was on Grand Cochere, a low, flat sand-bar about half a mile long by a quarter of a mile

wide and only a few feet above high water mark. This island appears on the chart as a sand shoal with four feet of water over it at low tide, but during recent years it has been elevated to its present position, though it might be badly washed if a heavy gale should come during the spring tides. It lies 114 miles off shore, well outside of all the other islands. A colony of Royal and Cabot's Terns had attempted to breed earlier in the season on South West Key, a similar low, sandy island, but had been washed off; probably the same birds were now making a second attempt at Grand Cochere. By counting the nests in a measured space and measuring the extent of the largest colony, I figured that it contained about three thousand five hundred nests, mostly Royal Terns, but with a fair number of Cabot's Terns. There were several other smaller breeding colonies on the island. I estimated that the total breeding population of the island was made up as follows: Royal Terns, 4,000 pairs; Cabot's Terns, 1,000 pairs; Black Skimmers, 300 pairs; Caspian Terns, 40 pairs; and Laughing Gulls, 10 pairs, making a total of over 10,000 breeding birds. With the exception of a few nests of Laughing Gulls containing young and one young Royal Tern, all the nests contained eggs, mostly heavily incubated, judging from the few that we collected. The Caspian Terns were in a compact colony by themselves at one end of the island. This was the only colony of this species that we found, though we saw a few scattering pairs of them elsewhere, breeding with the Laughing Gulls and Black Skimmers on the small islands. The Royal and Cabot's Terns were incubating almost universally on one egg each, although a few nests contained two eggs each. Captain Sprinkle told me that they usually lay two eggs for the first brood, but only one egg each on their second attempt at nesting. About thirty Man-o'-war-birds were perched on an old wreck, a large flock of Brown Pelicans—perhaps two hundred—frequented the sand-bars, and thousands of Black Terns came in at night to roost on the beaches.

June 20 and 21 we spent at Battledore island, which has been very much reduced in size by the washing away of the sand and shell beaches, leaving only three or four acres of high shell beach enclosing a small marsh and a muddy bay. Lawrence Pablo was stationed here as keeper, living with his family in a small schooner. He claimed to have kept all gunners and eggers away, and the island shows signs of being regularly patrolled. It was certainly thickly populated with about five thousand pairs of Laughing Gulls, one thousand pairs of Black Skimmers, fifty pairs of Louisiana Herons, thirty pairs of Forster's Terns and twenty-five pairs of Common Terns. The latter were apparently not breeding here, but all the others were and had been successful in hatching their young, or were incubating on full sets of eggs. A pair of Caspian Terns were seen here, and they were probably breeding.

On June 22, we visited Hog island, which had been broken up into several sections by the washing away of beaches and portions of the marshes. There were a few small shell beaches left, but most of the area was occupied by salt

marshes covered with long grass and with extensive thickets of black mangrove bushes. About two hundred pairs of Louisiana Herons were breeding in the mangroves; most of the young were nearly grown and almost ready to fly. There were about two hundred pairs of Black Skimmers nesting on the shell beaches with full sets of eggs; only one young Skimmer had hatched. Laughing Gulls and Forster's Terns, about a thousand pairs of each, were nesting on the marshes, among the beach grass and under bushes. Most of the Terns' and many of the Gulls' eggs had hatched and one young Forster's Tern, nearly ready to fly, was observed.

The remaining two days were spent on the return journey among the numerous small islands in the so-called Louisiana Marsh, a portion of the Mississippi Delta, cut up by many bays and channels, including Morgan Harbor, Eloi Bay and the Corrall islands. These islands are flat and marshy, with scattered clumps of small black mangrove bushes, and with occasional strips of shell beaches. Dutcher's island was one of the most interesting, with a colony of about two hundred pairs of Black Skimmers, a pair of Willets and about five hundred pairs of Laughing Gulls. This was the island on which Mr. Job found the Louisiana and Snowy Heron breeding, but there were none there this year and, so far as I could learn, there were no Snowy Herons breeding anywhere in the Reservation. Nearly all of these islands were thickly populated with Laughing Gulls. Where there were shell beaches, small colonies of Black Skimmers were found; and where there were mangrove bushes, colonies of Louisiana and Black-crowned Night Herons had succeeded in raising their broods. Many small colonies of Forster's Terns were seen, and a few scattering pairs of Caspian Terns were nesting among the Black Skimmers. On nearly all suitable islands one or two pairs of Willets were breeding, and evidently had young concealed in the grass, for they were very demonstrative and noisy. The specimens that I collected were referable to the eastern sub-species, though the western form has been said to breed on the Louisiana coast. A few Louisiana Clapper Rails were seen on the marshy islands; Florida Red-wings were common, and Louisiana Seaside Sparrows were abundant. Large numbers of Brown Pelicans were seen on nearly all of the outer islands, but they had long since finished breeding. Man-o'-war-birds were also common, and Captain Sprinkle said that they bred on the Reservation in February.

The warden seems to be doing his work thoroughly and conscientiously, making the circuit of the Reservation regularly once a week, and all the colonies appear to be flourishing under his care; but he is seriously handicapped by the lack of a good, fast power-boat or auxiliary. Nearly all of the fishermen have auxiliary motors in their sail-boats, and can easily escape when they see the warden coming. He has an immense area to patrol, about five hundred square miles, and should have the best facilities, in order to get the best results.

STATE AUDUBON REPORTS

Alabama.—The statutes for the protection of birds and game, model and modern as they are, have had a wonderful influence on the wild-life situation in Alabama. These laws are well enforced, being backed up by a strong public sentiment that demands the conviction of all offenders against their provisions.

The slaughter of non-game birds has been stopped. Under old conditions, they were butchered constantly every day by wanton boys and reckless men. The people have come to appreciate that birds are an asset, and that they should be kept alive to do service for the farmers by destroying injurious insects and noxious weed seeds.

The Department of Game and Fish has prospered, and the Commissioner has not hesitated to compensate wardens well for their services in enforcing the law.

Laws similar to the Alabama statute should be urged in those southern states which have not yet made adequate provision for the preservation of the wild bird and animal life.—John H. Wallace, Jr., *Game and Fish Commissioner of the State of Alabama.*

Arizona.—Tucson has the only Audubon Society in the Territory of Arizona, whereas there should be many other local societies and a strong state organization.

Owing to the shifting population, the membership of our Society remains about the same, but has greatly increased in interest and loyalty. The past year the meetings held each month, according to the program, were carried out with one exception. The Field Days proved especially attractive and instructive.

During the spring months, Tucson was extremely fortunate in having in her midst two ornithologists, well known to all readers of Bird-Lore, Mr. and Mrs. William L. Finley. These tireless and enthusiastic Audubon workers inspired our members with new life. We were given two rare treats by them. The first was when Mr. Finley presented his lecture "Hunting Birds with a Camera." The writer wishes that every man, woman and child in Arizona might have the opportunity of hearing this excellent lecture. The second was the privilege of having Mr. and Mrs. Finley's company at a Field Meeting, April 30, their knowledge of bird life adding zest to the study of the birds and their nests. Arizona hopes to be able to welcome this worthy couple back again in the near future.

Mr. Herbert Brown, President of the Society, will continue the work on the Arizona game laws. There is much need for his efforts. Doves, for example, are not protected at any time of the year. After 1910, the Antelope

and Rocky Mountain Sheep will be left unprotected.—Mrs. Harriet B. Thornber, *Secretary.*

California.—The past year has been one of the most successful in the history of the Audubon Society. There seems to be a growing interest in bird protection, and the first Bird and Arbor Day was widely observed. An appeal was made to our Congressmen to vote for Senate Bill No. 7,242, which would give better protection to the fur seals of the Pacific Coast; this bill has since become a law.

On February 4, a public reception was given by our Society in Los Angeles in honor of our President, Mr. David Starr Jordan. About two hundred people were present, and listened to a comprehensive address on bird protection by Dr. Jordan.

During the year, our Society has been made an honorary member of the State Humane Association. The State Federation of Women's Clubs became a member of this Society, and invited our Secretary to tell of our work at the State Convention, April 8 to 12.

Two years ago the Supervisors of Los Angeles county appropriated two-hundred and fifty dollars to rid the county of English Sparrows. A like amount has been appropriated this year, and an effort is being made to get all the southern counties to coöperate in an effort to keep out this pest, which has gained such a foothold in northern California.

Two cases of violation of the game-law by offering for sale the plumage of the Snowy Heron were found in San Francisco by William L. Finley, Field Agent of the National Association. Mr. Finley found difficulty in handling these cases, because of the unwillingness of the police judge, before whom they must be tried, to issue warrants for the offenders' arrest. When the arrests were finally made and the cases tried, one against a jewelry firm was dismissed, because it pleaded ignorance of the law; the milliners escaped with a five-dollar fine. In Los Angeles one hat with plume was confiscated; it is quite likely that some violations escaped notice, but, on the whole, the plumage law was very well observed.

Our most important work during the past year was employing a School Secretary, who gives her entire time to public lecturing. She visits teachers, Farmers' Institutes, Women's Clubs and schools, and also organizes Junior Audubon Societies. In seven months Miss Libby has given 230 bird talks in twenty-five towns and seventy-two schools, speaking before 12,000 children and 1,700 adults. Forty-six Junior Audubon Societies have been organized with a membership of 2,395, making the total junior membership 3,135 in the state. The funds for this undertaking were given by the National Association, the Pasadena and Riverside Societies, the sustaining and junior members, and from proceeds of lectures.

It is an interesting fact that when Miss Libby was engaged there was

less than ten dollars in the treasury, but at the end of her first campaign there was a balance in the treasury. The above goes to show what can be accomplished by a competent School Secretary. During the past year the school work has been carried on in the southern part of the state; the coming year Miss Libby will work in Central and Northern California.—Mrs. Harriet W. Myers, *Secretary*.

Connecticut.—The Thirteenth Annual Meeting of the Connecticut Audubon Society was held at Fairfield on October 29. There was a largely attended morning and afternoon session, luncheon being served at 12:30 P.M. The work of the year was reviewed by the reports of the several secretaries, supplemented by a sketch of the year in the fields by Wilbur F. Smith, Game Warden of Fairfield county.

For greater attention to detail, our Society has tried the experiment of having different secretaries for various phases of the work, and finds the plan of great benefit. (1) The Secretary proper attends to the general correspondence, signing of certificates, etc., with an assistant to send out notices of the meetings, etc. (2) The School Secretary, Miss Frances A. Hurd, of South Norwalk, attends to the sending out of leaflets and literature to the schools, besides acting as secretary, with whom local secretaries may correspond at will. (3) Mrs. Chester H. Brush, of Danbury, is the Secretary of Memberships, attending to this important branch of the work, which not only consists of sending out buttons, pledge-cards and certificates, but this secretary is also a vigilant "look out" for every possible occasion where new members may be obtained. She keeps the record of members, and turns over the funds to the treasurer. Regular executive committee meetings are held monthly during eight months of the year, at which time all the secretaries make reports.

As usual, the chief work of the year has been educational, and the main item of expense the rebinding of books for our traveling libraries, and the purchase of charts and leaflets for school distribution.

Mrs. Belle Johnson, of Hartford, who keeps a record of our material handled by the Connecticut Library Association, reports as follows:

Bird Charts.—During the past year 200 sets of charts were loaned to 202 schools; also sixty copies of Reed's Bird Guide were sent with the charts.

Libraries.—Sixty-one libraries, containing 636 books, were loaned 106 times, with a total circulation of 3,432.

Portfolios.—Sixty-six portfolios of pictures were loaned ninety-five times. Two hundred new pictures received in August have now been grouped, making the number of portfolios now ready for circulation ninety-eight.

Lectures.—The lecture, "The Birds about Home," was used six times, with an attendance of 1,205. The lecture for children, "The Story of a Robin," was used three times, with an attendance of 641.

Mrs. Johnson read selections from many letters both from teachers and pupils, expressing appreciation of our various traveling outfits.

The Secretary of Schools reports the interest in Audubon work to be concentrated in comparatively few places, in spite of the fact that the state has thirty-five local secretaries. The advantage of having school teachers and superintendents as local secretaries was aptly illustrated by the fine report sent Miss Hurd by Lewis Sprague Mills, State Agent in School Supervision, acting in the towns of Avon, Beacon Falls, Bethlehem, Middlebury, Prospect and Sprague,—six towns in four counties. It is his custom, each time when visiting a school, to give a short talk on something of seasonal interest in which he feels the children will be interested.

Five hundred and sixty-one new members have been added during the last year.

The Game Warden reports an increasing respect for the laws, even though in some quarters the foreign element destroy song-birds, though well aware of the law concerning them.

Herbert K. Job, the recently appointed State Ornithologist, filled the afternoon session with a talk entitled "The Charm and Value of Wild Birds." He also outlined some of the state work planned for the coming year, an interesting feature being the publication of a monthly newspaper syndicate letter concerning birds, their protection and study, taken from every standpoint.—Mabel Osgood Wright, *President.*

District of Columbia.—Nothing of especial note has taken place in our Society this year. We have had our usual Field Meetings, six in number, with a total attendance of one hundred and four persons, fifty-six of whom had never been on our walks before. This seemed to us a most encouraging sign of increasing interest in the work of our Society. On one of these walks one hundred and seven varieties of birds were noted. Previous to the walks we had a bird-study class of seventy members, the class being divided into two sections, one for beginners, the other for more advanced students. A lecture on migration was given by Prof. W. W. Cooke, at the last meeting of the class.

During the year, we have had several free public lectures, delivered by prominent ornithologists.

With the United States Biological Survey in our midst, we have many opportunities of learning the work of bird protection in this and other countries. Our Society has taken advantage of these facts, and Dr. Henry Oldys has edited three or four leaflets, under the title "Current Items of Interest," copies of which have been sent to all the State Societies, and have seemed to be much appreciated by all who have seen them. They will be sent to any Society for the cost of printing, which is about four dollars for five hundred copies. It has been proposed that with each issue we should publish the list of the officers of the different Societies. The last issue had

the names of the officers and Executive Committee of our own Society, and with the next issue we hope to furnish a list of the officers of the Illinois Society, as that was the first one to coöperate with us. Our membership and finances both seem to be in an encouraging condition.—Helen P. Childs, *Secretary*.

Florida.—We find this year, as heretofore, much discouragement arising from non-support of our State Government, and non-enforcement of existing laws for bird protection. Yet we are confident of a more intelligent and widespread interest in bird life than ever before among Floridians. Since our foundation, ten years ago, we have lost, by death or change of residence, many of our officers and members; however, others continue to join. For 1910, our membership numbers 1,500; several thousand leaflets, circulars, reports, bulletins and Florida Audubon Society post-cards have been distributed. Seventy-five charts for bird study have been placed in schools; warnings have been posted, as well as printed cards with "Summary of Florida Laws for Birds." In many towns "Bird Day" was observed, and through the interest of Mr. Holloway, State Superintendent of Education, "Bird Day" was celebrated in conjunction with "Arbor Day," in many schools. Four prizes were given for bird-study papers to pupils of "The Robert Hungerford Industrial and Normal School" (colored) at Eatonville.

The auxiliary at Port Orange has been carried on as formerly, with success, by Mrs. Roe. At Fort Myers, Mrs. Hanson has helped in many ways, and has written for the Society two leaflets for children. Mr. Hendry, of La Belle, has protected the birds in his vicinity, and contributed articles to local papers on bird life. Mrs. Orcutt, of Ruskin, writes us that a resolution in favor of bird protection was passed by the "Commongood Society" of her town. The Sunshine Society, through Mrs. Bradt, continues its good work for birds. Mrs. Coulson, of Bradentown, Chairman of the "Bird Preservation Committee of the Federation of Florida Women's Clubs," reports: "Much good work has been done during the year; meetings have been held, essays read, circulars distributed. Next year we hope to have more systematic work done in schools. We hope to prevent the sale of aigrettes about hotels by plume hunters and Indians. We shall use our influence in support of a Game Commissioner. There are thirty-one Women's Clubs in Florida, with a membership of 1,600. Bird Day was observed with excellent programmes by fifteen of these clubs." The Federation subscribes annually to a sustaining membership to the Florida Audubon Society, and many leaflets are received for circulation.

The Auxiliary at St. Petersburg was organized in November, 1909, with Mrs. Tippett as President; Mrs. Barton, Secretary; Mrs. Trowbridge, Treasurer. It has an interested and growing membership among the best citizens of the town, and the work, so well begun, gives promise for the future. Mrs. Tippett's report says: All through the winter there has been the greatest

enthusiasm. There was no lagging interest, but an untiring striving for results. First, the boy with the gun received attention; printed summaries of the State Bird Laws were posted conspicuously, also, warnings against killing birds out of season, with the penalties attached. Secondly, the prowling cat was discussed; a painless death for tramp cats was advocated, with a tax on all others, to insure proper care by their owners. Thirdly, attention was called to the advertisements of air-guns in "The Boy's World," a widely circulated Sunday School paper, with the result that the publishers withdrew all such advertisements. The fourth matter of interest is an endeavor to have Meadowlarks and Robins put on the list of protected birds. Many meetings were held, where papers were read, literature was circulated, bird-houses and Martin-boxes were built, boys joined us, raised bird families, and gave up guns; and from a sense of possession and protection came a love for their charges, productive of more good than all the laws and penalties. At the opening of the St. Petersburg meetings, this autumn, a large "bird pavilion" is to be dedicated; this has been planned by Dr. Ennis, and will be under the care of the Auxiliary. Here birds will always find shelter, rest and food, while bird lovers may enjoy their songs and study their habits and plumage.

This same thought has been carried out by Mr. Deering at Cocoanut Grove, who has arranged in his garden a 'Birds' Tea Table' which every day attracts numerous birds.

Mrs. Kirk Munroe, of Cocoanut Grove, writes: "Our Housekeepers' Club had an enthusiastic 'Bird Day'. The Club has done much good work this winter; a corner of our clubhouse is decorated with bird pictures sent us by the Florida Audubon Society. We have publicly asked that aigrettes should not be worn in our clubhouse. 'The Rangers', my boys' club, can make a fine report of work this year." Through Mrs. Munroe, the Florida Audubon Society will give, for special work this autumn, three (book) prizes to the boys of 'The Rangers.'

To the 'Times-Union', and press generally, we here acknowledge our thanks; also, to the Southern Express Company.

A decided increase in bird life is observed and reported; some recent reservations will give needed protection, but some growing rookeries need proper guardians.

In conclusion, may we not, then, urge some combined effort on the part of the Audubon Societies of the United States to support and further every measure for the conservation of forests, without which many birds will be deprived of necessary food, shelter and nesting-sites?—Mrs. Kingsmill Marrs, *Chairman of Executive Committee.*

Illinois.—From May, 1909, to May, 1910 (our Audubon year), our routine work has gone on, with the following statistical results. Nearly 1,000 letters have been received by the Secretary, representing 80 out of our 102

counties. We have added 53 adults and 2,161 children to our membership list, and have distributed 14,055 leaflets.

Our four libraries, five sets of mounted pictures, and two lectures, have been "busy here and there", though by no means reaching the limit of their possible usefulness. These are all generously given house by the Chicago Academy of Sciences, which is doing fine work for birds on the same lines, largely through the instrumentality of Prof. Frank Baker, Mr. Frank M. Woodruff, and Dr. Pepoon, all of whom we are fortunate enough to count among our officers.

A programme for Arbor and Bird Day, prepared, as last year, at the request of the Women's Outdoor League, was drawn up by Mr. John M. Blakeley, and 1,500 copies were sent to schools and clubs. We have printed a list of our 251 sustaining and active members, but have published no new leaflets.

From the Society of the District of Columbia we are purchasing and distributing, as often as they appear, the excellent leaflets by Mr. Oldys, 'Current Items of Interest.' We have added to our equipment two sets of lantern slides, taken from the fine series of the English Society—'The Story of the Egret.'

These pictures were exhibited at our annual meeting on May 7, and told their sad story silently and powerfully. At this meeting we had with us Prof. Francis H. Herrick, who gave an interesting and beautifully illustrated lecture on 'Instinct and Intelligence in Wild Birds.'

Our financial showing we consider to our credit as long as we keep our expenses well within the bounds of our receipts, but it is a question whether it is to the credit of this great state of Illinois that the money contributed for this important work is so small a sum. However, our receipts, amounting to $582.90, were a decided improvement over most years, and are therefore a more cheerful subject than usual. Our expenses were $460.17.

The new Illinois game-law went into effect July, 1909. The open season for Quail has been shortened to twenty-eight days; the bag limit for Quail has been reduced from fifteen to twelve; for Ducks, from twenty to fifteen, and, for Geese and Brant, from twenty to ten. Snipe and Plover can no longer be sold. All kinds of Hawks, useful or otherwise, have been placed on the unprotected list; as are also the Blue Jays, those birds of beauty and quick wit, few faults and many virtues.

Our Board of Directors met a serious loss and personal sorrow through the death, in February, 1910, of John F. Ferry. He was an enthusiastic bird student, and his scientific career seemed full of promise and we hoped much for his future as an ornithologist. On our Board he was always sympathetic and helpful, and his early death has cast a somber shadow over our year's work.

In closing, I would like to speak of a book—'A Manual of Moral and Humane Education,' by Mrs. Flora Helen Krause, of the Chicago Anti-

Cruelty Society. It will prove of real aid to the bird-protection cause, as much space is given to the birds.—Mary Drummond, *Secretary.*

Indiana.—The ordinary routine of Audubon Society work has been going on this year much as usual. Our work consists of sending out printed matter, keeping in touch with the various bird and nature clubs and societies, work in the schools in shape of bird talks, loaning our slides for lectures, and the publicity efforts carried on through the newspapers.

There are two items of special interest to report in our year. First, and most important, we have the pleasure of reporting the turning over to the public of the estate known as 'Buzzard's Roost'. This forty-acre tract, within easy trolley distance of Indianapolis, and the center of the state, has been given to the people by its owner, Mr. William Watson Woollen. More than ten years ago, Mr. Woollen bought this place with the intention of developing it, not as a farm nor a park, but as a retreat for the wild,—a place where the native wild life of Indiana, plant and animal, might be protected. The hills, ravines and creek bottoms provide a great variety of plant life. For years, Mr. Woollen has devoted all his leisure to carring out this ideal Here are found plants that have become extinct in other parts of the state. In this preserve the birds and little wild beasts have learned that they are safe.

In addition, Mr. Woollen built twin cabins, duplicating those of the early settlers; the rooms of these cabins are to be used, one as a gathering place for the clubs, classes and societies who come to the 'Roost', and the other for a Museum and Library of Natural History of Indiana. All this Mr. Woollen has done, not only with delight in the work itself, but with loving thought for those to whom he wished it to be an inspiration in nature study and outdoor life—the girls and boys of Indiana. Here teachers bring their pupils to study the plants, the birds and the trees, and the cabins themselves are a lesson in pioneer history, more impressive than any to be found in books.

The Indiana Audubon Society is proud of the fact that Mr. Woollen is one of its charter members, and has always served in some capacity on its official force.

The annual meeting, this year, was held in Marion. The two evening sessions in Carnegie Library Hall were crowded, to hear lectures on birds, illustrated with slides. Not only were speakers furnished by us, but the various clubs had arranged for short addresses by their members of welcome along the topic of the meeting. Friday morning, bird talks were given in every school in Marion, and in the afternoon a session was held at the State Soldier's Home, and the old soldiers and their friends turned out in numbers to attend the meeting. As usual, we planned to have every one at least have an opportunity to hear of the Audubon Society and its work, and to invite every one to help the work along. From the size of the audiences, it looked as though our plan was entirely successful.—Florence A. Howe, *Secretary.*

Iowa.—The work accomplished during the past year is somewhat similar to that reported in previous years. The Audubon Society of Iowa has been ably represented at the Board Meetings of the federated clubs of Iowa by its President, Mrs. W. B. Small, of Waterloo, who has requested that the district chairman shall include this work in all outlines for district meetings.

Mrs. J. W. Richards, President of the Iowa Federation of Women's Clubs, has sanctioned the work, and has been helpful to the cause in many ways. Miss Mame Weller, of Nashua, Chairman of the Committee on Conservation in the Iowa Federation of Women's Clubs, is also an ardent worker for the birds as well as for the preservation of our timber lands and water ways.

The secretary of the Iowa Audubon Society had the pleasure of hearing the splendid lecture given by Mr. Frank M. Chapman, at the Conservation Congress in St. Paul. This vital subject of bird protection should be repeated at the next Congress and the next, and, in addition to the emphasis laid upon the value of birds in forest preservation, there should be added a practical talk on the value of our common birds to agriculture, with the necessary slides to illustrate the manner in which the destructive insects are devoured by the young birds during the nesting season.

The slides and lecture donated by Miss Hammond, of Schaler, Iowa, were in constant demand during the spring and early summer months. The lecture, prepared by Edward D. Clark, of Washington, D.C., and the sixty beautiful slides, are still freely offered for use in any locality of the state; the only stipulation being that the shipping expenses shall be paid by the society making the application for their use.

We are sending out leaflets to all who inquire for bird literature. Many requests are being made by clubs for outlines of spring and summer work. It is gratifying to note that, while we have no annual dues, we have a few faithful workers in Iowa who send in a new list of names every year, with the accompanying membership fee of twenty-five cents for adults and five cents for juniors.

At a recent meeting of the Executive Committee of the Audubon Society, a small sum was set aside for the Mary Dutcher Memorial Fund, as an expression of appreciation of the great work accomplished by Mr. William Dutcher. We have still in Iowa many women who openly violate the law for the protection of birds, though the penalty for the sale or possession of bird plumage is plainly stated to be a fine of five dollars or imprisonment for thirty days. If this law were enforced, what an assemblage of women, arrayed in the barbaric splendor of the Indian Chief, would appear in our courts of justice?

Many may be ignorant of this law, but all good citizens should inform themselves concerning this, as well as other humane legislation. A stronger effort should be made by those in authority to enforce the laws of the state.—Jane Parrott, *Secretary.*

Kansas.—This Society made an effort to have the legislature of 1909 pass an act for the protection of harmless wild animals and birds. This bill was patterned after the 'Model' Audubon law, with slight alterations, to meet local conditions. It failed of passage, being killed in the House, although recommended by the committee having it in charge. Subsequent efforts for its passage were made through Mr. Clinton A. Matson, the Wichita representative, and others, but these also resulted in failure. The only notable legislation regarding birds passed by the last legislature was the creating of a bounty fund for Crows.

During the past year an article, comprising about 10,000 words, showing the economic importance of bird life to the people of Kansas, and the agriculturalists in particular, has been prepared for publication in connection with another effort that will be made to have the next legislature pass our model law. We have had the hearty coöperation of those interested in natural history, both at the State University at Lawrence and the Agricultural College at Manhattan, and we have strong hopes of successful results in our next effort.

In addition, Kansas is to be congratulated in her present Game Warden, L. L. Dyche, Professor of Natural History in the State University at Lawrence. He is a man of international reputation, has had wide experience in exploration, and exerts an influence that is correcting many erroneous impressions which prevailed during the incumbency of previous game wardens. As a whole, the future looks bright.—Richard H. Sullivan, *President.*

Maryland.—At the last meeting of the Maryland legislature, the game laws received some needed alterations. Wild-fowl shooting was prohibited on Sunday, and in certain counties authority has been granted to commissioners to shorten, close or open the existing seasons. Stricter rules regarding sale, shipment, licenses, training of dogs, etc., were also made, and safeguards added for the protection of non-game birds.

Much, however, remains to be done. We are fortunate in having at this time in Maryland a man who is so largely responsible for the excellent bird law now in effect in California. A strong local Society has been inaugurated in Eastern Maryland, under the leadership of Mr. W. Scott Way, which will contribute greatly to the success of Audubon work in this state. Baltimore city and the eastern shore, which are invaded every summer by a large army of mosquitos, might learn a practical lesson from a little settlement in Indiana which I visited this year. It is situated on an attractive lake, but its charm was diminished by the presence of the ever-unwelcome mosquito. One sees in all directions minature houses on tall poles, in which Purple Martins were invited to make their abode. The invitation had been accepted, and large numbers of these birds were to be seen sailing through the air in search of their daily meals. Mosquitos are considered appetizing morsels by the

Martins, and, as a consequence, they are becoming rare in this vicinity. Extravagant expenditure of bird life always leads to over-production of insects, while, on the other hand, as at Winona, where the birds are heartily welcome, the insects disappear in proportion.—Minna D. Starr, *Secretary.*

Massachusetts.—The last year has been a busy one, and our membership has increased to 8,226, of which 2,992 are juniors. We have four local committees, in addition to our local secretaries.

Many leaflets, warning notices in English and Italian, and copies of the laws have been distributed. Our traveling lectures have been sent out, when requested. There has been a good sale for our bird plates, charts and calendars.

All complaints of violations of law have been reported to the state officers, the Fish and Game Commission, and prompt action taken.

Much interest has been shown in legislation. Petitions in favor of the present anti-spring shooting law were sent to our members, with the request that they get as many signatures as possible and send them to their representatives and senators. These petitions met with a cordial and encouraging response, and no doubt did much to prevent the repeal of that law.

An appropriation of twenty-five dollars was made to the Forest and Field Club of Belmont, to help them in the matter of hiring wardens.

A report of our work since 1902 was published in February. From November 1 to December 12, the Society had an exhibit at the "1915 Boston" exposition, at which were shown hats trimmed without the feathers of wildbirds, loaned by five leading milliners; mounted specimens of birds once used in millinery, but now protected, loaned by the Boston Society of Natural History; feathers confiscated from milliners by the Fish and Game Commission, and a mounted specimen of the Heath Hen, loaned by Dr. Field; also, an exhibit showing how aigrettes are obtained, which was furnished through the generosity of Mrs. Hemenway. The Norfolk Bird Club very kindly served as attendants in the afternoons.

The usual monthly meeting of the Board of Directors has been held, but our lecture course was omitted this year. On the afternoon of April 23, at Huntington Hall, a lecture free to the public was given, at which Mr. Edward H. Forbush spoke on legislation, and Mr. Edward Avis gave his talk entitled 'An Afternoon in Bird Land.' A brief report of the work and needs of the Society was given. The audience was large and appreciative. Drawings for two new bird charts have been made for us by Mr. Louis Agassiz Fuertes, which will be published at the first opportunity.

We have met with a serious disappointment in being unable to publish the new calendar which had been planned for this fall. Owing to a severe flood in Japan, in August, which destroyed everything but the original drawings, it will not be possible to get the calendar plates printed and ready for sale before March.

In April, the Society sent Mr. Ernest Harold Baynes on a lecture trip to western Massachusetts and the Connecticut valley region, for two weeks, to help our local secretaries by arousing interest and to secure members. Over 800 members were gained, a little more than 500 being juniors.—Jessie E. Kimball, *Secretary.*

Michigan.—The Michigan Audubon Society has extended the work of lectures and of prize competitions in the schools of the state during the past year. The prizes given, in which the Audubon Society has participated either as donor or judge, aggregated about $1,500. As a result, much greater interest is shown in bird study in the schools, and more active work is done in bird protection. To further stimulate efforts in this line, the Michigan Society has joined with Wisconsin and Illinois in the publication of 'By the Wayside.'

Our Society has constantly advocated the abrogation of spring shooting, and has taken advantage of every opportunity to bring that, and the advisability of requiring a resident hunters' license for Michigan, before organizations that show an interest in the conservation of wild life. We have joined with the Michigan Association for the Protection of Game in endorsing progressive legislation for game protection.

One of the most important of these questions is the provision for a game commission which will take the enforcement of our game laws out of politics and, we hope, improve conditions generally.

Mrs. Anna Walter, of Marcellus, has continued her writing and lecturing, and in various ways has brought bird study and bird protection before the people of the state. County game warden Charles Daniel has prosecuted Audubon work with marked results.

We have been endeavoring to have a petition circulated requesting the legislature to forbid the sale of birds belonging to the same family as those now protected in our state. The millinery trade is lined in opposition. The present inadequate law makes it next to impossible to seize bird plumage in the stores.

During the past year, bird protection has been much more generally endorsed by the press than heretofore. The national discussions regarding conservation have had a marked effect for good in this state. It has reached that stage, however, where active discussion is prevalent and interest is rapidly increasing. The next step will either be action or reaction, and much depends on the coming legislature.

Financial assistance from the National Society has helped the Michigan Audubon Society in emergencies, but many opportunities are lost because of lack of funds to take advantage of opportunities.

Our Society has investigated numerous claims of discovery of the Wild Pigeon in this state, all of which were without result.

Our Society proposed an interstate conference with adjoining State Audubon Societies regarding Audubon work. We contemplate bringing this forward again later.—Jefferson Butler, *Secretary.*

Minnesota.—The work of this Society has been largely of an educational nature. The writer has contributed a series of six articles on bird and animal life to the St. Paul papers, and these have been widely read in the state, and some have been reprinted in papers elsewhere.

Twelve illustrated lectures have been delivered on bird life and animals. These have been given in St. Paul and Minneapolis, and in several country towns in Minnesota. These lectures reached directly an audience of about 4,000 people.

Plans are now under way for having a series of lectures on bird life delivered at the summer schools for teachers, which are held each summer in about sixty counties of the state.

The writer and others expect to present the Audubon work to the Boy Scouts that are being organized in this and neighboring states. We have also furnished plans for several bird-study clubs, and expect to do more of that kind of work in the future.

I believe that one of our great needs in Minnesota and several other states in the Central West, and in several Canadian provinces, is a reconnaissance for breeding colonies and breeding areas of water-birds, waders and game-birds, with a view to the establishment of bird reserves. If this is not done very soon, the breeding-places of many valuable and interesting birds will be irretrievably destroyed. The historic Heronry of Lake Minnetonka, I fear, will soon be a thing of the past. For preserving this fine colony of Great Blue Herons and Cormorants, we are allowing the right moment to pass.

We had a well-arranged exhibit at the State Fair in September, which attracted much attention. Our total membership is about two thousand.—D. Lange, *President.*

Nebraska.—During the past year, the Nebraska Audubon Society has distributed literature, and placed effectively the 'Ladies' Home Journal' pictorial sermon on the aigrette. There is a continually increasing interest in bird life in this state, a stimulated interest in the whole conservation movement.

We still hope for more time and money to give our Society greater effectiveness.—Joy M. Higgins, *Secretary.*

New Jersey.—Late in the legislative season, an attempt was made to secure an amendment to the non-game bird law of the same character as the one passed in New York, extending the provisions of the law to birds of protected species killed without the state, also to those taken within the state. The bill passed the Assembly before its enemies realized its character, but it

was promptly held up in the Senate Committee and seemed likely to die there. President Dutcher and Mr. Bowdish went to Trenton on April 4, to try to force the bill on to the floor of the Senate. Mr. Bowdish remained at the Legislature until the morning of April 7, when, in its closing hours, just before dawn, the Audubon Bill was finally called out at the instance of its friends, but was defeated. The loss of this bill was due to a total misunderstanding on the part of the Senators regarding its real character, and a lack of organized public sentiment.

This emphasized the necessity for reorganizing and upbuilding the New Jersey Audubon Society to a plane equal with the most effective State Societies. To this end, it has been determined to call a meeting for the election of officers for the ensuing year, the drafting of a new constitution and by-laws, and the discussion and formulation of plans for future work. This meeting will be held at Plainfield, New Jersey, in the near future, and it is hoped to get together a large number of people interested in the conservation of our bird guardians, who will make the New Jersey Audubon Society a banner organization.

Letters from individuals in various parts of the state show continued interest in bird study and bird protection. Many applications have been made for leaflets, and particularly for posters warning against wanton destruction of birds contrary to the law.

We are sure that a wider circulation of Bird–Lore could not fail to interest bird lovers, and to bring new recruits to the ranks.—Julia S. Scribner, *Secretary*.

New York.—The success of the Audubon Plumage Bill, amended to take effect in July, 1911, and signed by Gov. Hughes on May 7, 1910, marks the past year as a red-letter, epoch-making one in the history of bird protection. The long, weary struggle to put an end to the traffic in the plumes of the beautiful Snowy Heron is won at last in New York.

The result was attained through the strenuous efforts of Mr. Dutcher and his fellow workers. Great assistance was rendered by Mr. Pearson, Secretary of the National Association, who was stationed at Albany to watch developments and to work for the bill. Literature and appeals for co-operation were sent by the thousands by both State and National Societies. It was said that no other bill introduced during the session of the legislature had created such intense interest. The immediate success was won by hard work, and through the fine responses of the members of the Society and friends of the birds throughout the state. One of the most encouraging points established by the result undoubtedly is the proof it gives that the principles of bird protection have taken root far and wide throughout the state.

Legislators watch the pulse of their constituents, and the victory is a public recognition that bird protection is a work for the people.

Financially, the history of the year is the same old tale. The Society will, in fact, enter upon the new year with a large debt, in consideration of its resources, as the legislative expenses, although shared by the National Association, were very heavy.

The regular work of the Society has gone on as usual. A large amount of literature has been distributed; the first traveling library has been donated, and eleven new local secretaries have been appointed.

Last spring, the board of directors decided to try to raise $2,000 per year to employ a field agent to canvass the state. The Society issued a strong appeal, signed by the entire board of directors, setting forth the plan, and urging coöperation in securing more sustaining members; also, an additional class of contributing members, with dues of two dollars per year, was introduced. The result was a few dollars more than the subscription of the previous year. We now have only sixty-nine sustaining members, which is the main support of the Society, aside from individual contributions, which naturally vary from year to year.—Emma H. Lockwood, *Secretary*.

North Carolina.—During the year, this Society has employed an active force of fifty-seven game wardens. They have done much educational work, such as distributing leaflets, purchased from the National Association, handing out booklets of the game laws, posting cloth 'Warning' notices, and preparing various notices for the local press. Their influence in the prevention of crime and in assisting to cultivate public sentiment for bird protection has, without doubt, been their most important service to the state. Many of them have found it necessary to bring prosecutions in the courts for violations of the statutes. A number of these cases were brought to successful issue, persons having been convicted for such offences as killing the Cardinal, Catbird, Nighthawk, and other non-game birds. Four men were fined for killing Herons. It appeared that the birds were shot, not for their feathers, but merely for the supposed pleasure to be derived from taking a large bird.

This state probably contains more Bob-whites than any other Commonwealth east of the Mississippi. There are a great many Quail preserves, and, as a result, there are many thousands of bird-dogs in the country. In these the hunting instinct is so strongly developed that they continue in many instances to hunt by themselves during the close season. As they roam the fields, they find and destroy many young Quail, as well as the nests of numerous birds. There is therefore, a law in some counties which makes it a misdemeanor for owners of dogs of this class to allow them to run at large, unmuzzled, during the birds' nesting-season. Ten owners of dogs have been fined for not complying with this provision. There have been many convictions of persons who have hunted or killed game birds and animals illegally. In all, the wardens of the Audubon Society have successfully conducted one hundred and thirty-three prosecutions.

The office work of the Society has, as usual, consisted of answering numerous inquiries regarding the game laws, and many other matters which naturally come to the attention of the officers.

Eight permits to collect birds for scientific purposes have been granted to naturalists, and four permits have been issued allowing persons to take live Quail out of the state for purposes of propagation. The total number of birds authorized by these permits was two hundred and twenty-four pairs.

The sea-bird colonies in the neighborhood of Cape Hatteras have heretofore been guarded by a warden and his deputy, with the result that about 5,000 birds are believed to have been successfully raised. Of these, 800 were Least Terns. The bird islands of the Hatteras region, therefore, hold the largest Least Tern colony now existing in eastern United States. The Society has a total membership of 2,333, of whom 1,100 are children.

For the year, the receipts have amounted to $8,961.65; of this, $1,694.80 has been collected from membership fees and contributions, the remainder coming from the sale of licenses to hunt, issued to non-residents of the state, and a small amount from other sources.

The expenditures, which have largely consisted of paying wardens for their services, have amounted to $8,276.46, leaving a balance of $685.19 at the close of the fiscal year.

The Society strongly favors certain changes in our existing laws, one of the most important of which is a one-dollar resident hunters' license.—T. Gilbert Pearson, *Secretary*.

Ohio.—Without doubt, our most important fact to record in the history of the past year is the election of Mr. J. P. Cummins to the presidency of the Audubon Society of Ohio, to succeed Mr. William Hubbell Fisher, deceased. Mr. Cummins is a man of ability, tact and charm of manner, and his presence at the head of our Society promises continued success and growth. This has already been manifested by the healthy activities of the organization during the first year of his regime.

To introduce Mr. Cummins, the Society held a reception early in January in his honor, and the staid old Cuvier Club, with its historic associations, never looked brighter or cheerier than when, dressed in Christmas greens and in the glow of many candles, it opened its doors to welcome some one hundred and fifty friends of our Society. The guests were received in the Exhibit room, where they were guided about by a well-chosen committee, who presented them in turn to the birds, whose dignified mien and brilliant plumage added much to the charm of the occasion. The affair was voted such a success that there has been talk of having an annual Audubon Tea.

The series of lectures on birds in the various branch libraries of Cincinnati is still one of the most successful of our activities, and the attendance at these lectures proves that the children find the subject one that appeals to their

imaginations. There were also talks and lectures to Mothers' Clubs and other Women's Organizations, to Business Men's Clubs, etc., and there seems to be no lack of enthusiasm or effort on the part of the devotees who convene once a month in the library of the Cuvier Club.

When the General Federation of Women's Clubs met in Cincinnati, last spring, the Society, through a committee, sent in an appeal to pass a resolution that these women shall give to Bird Preservation and Bird Study their most earnest consideration; and we are happy to record that the resolution was unanimously adopted. We hope that at the next Conference the Audubon Society will arrange to have some capable and interesting lecturer bring the matter more closely to their attention. When the demand for bird plumage shall cease, the supply will cease, and the birds be allowed to live in perfect peace.

The field meetings grow more popular every year, and "The Ramblers" (an outgrowth of the Audubon Society and graduates of the University of Cincinnati), are open-eyed with wonder at the richness and variety of natural history that the hills of Ohio and Kentucky afford.

As a result of legislation, an effort was made to protect the Heron, by itemizing such birds as are classified under the term 'game-birds' in the law. The contention in the courts of Ohio has been based on the possibility of the Heron's being considered a 'water-fowl.' Not being among those named, it can no longer be placed in the same category with game-birds, and we hope this will effectually protect that bird in the future.

With the Chancellor of Germany, we believe "that the protection of animals from cruelty is to be regarded not only as the outcome of a love of nature, but as a matter of moral education; and, with this end in view, the work of our Society, ever changing but never ending, is one that must always play an important part in the education and uplift of every community.—Katherine Rattermann, *Secretary*.

Oklahoma.—The work of the Oklahoma Audubon Society for the past year has been mostly along educational lines. Bird literature has been introduced into public schools, and the result is that more birds are known, loved, respected and protected than ever before. Annual bird days have been celebrated in many schools, and leading educators throughout the state heartily endorse the work of the Audubon Society.

The state game law has been revised, and every person desiring to hunt game must pay a state license, and also obtain a permit from the owner of the land on which he desires to hunt.

Many farmers, realizing that the Quail, the Meadowlark, the Dove, and many other birds, are of inestimable value to their crops, positively refuse to permit any hunting on their premises.

The Audubon Society has been endorsed and commended by the State

Federation of Women's Clubs, and fewer women wear birds, aigrettes, etc., than formerly.—Alma Carson, *Secretary*.

Oregon.—The work of this Society for the past year has been, for the most part, educational. Quantities of literature have been sent over the state wherever it could be advantageously placed. There is a steady demand for our leaflets, most especially for literature adapted for school study.

There seems to be a healthy sentiment for bird protection throughout the state, save in certain fruit sections, where some birds come into disfavor; this is especially so of the Robin and Lewis' Woodpecker.

The corresponding secretary of the Society has, during the year, given talks on bird matters to granges, schools, women's clubs, mothers' meetings, kindergarten associations and manual training classes; her experience in meeting these various people showed that there was a great interest in the subject and, furthermore, showed the need of more sustained effort along this line.

All ears are open to the question of saving our natural resources, and bird protection is known to be a very live part of the subject. Our Society hopes to carry out more extended work the coming year.

During the past year another arrest was made for exhibiting aigrettes for sale; the man pleaded guilty, and was fined twenty-five dollars. Aigrettes are seen on women's hats, but the public sale of them has been stopped.

The past season has been the most successful one in years for water-fowl on Klamath Lake Reservation in southern Oregon and northern California. Warden Lewis reports about a thousand nests of Western Grebe, in comparison to one-fourth that number last year. At this rate, the colonies that were once practically destroyed by plume hunters will regain their numbers.

Ducks, Geese and other birds, are increasing rapidly since market hunting has been stopped in Klamath county.—E. J. Wetley, *Corresponding Secretary*.

Pennsylvania.—The work of the Pennsylvania Audubon Society has proceeded along its usual lines during the past year.

The associate membership, principally children, has increased several hundred, and a number of school clubs have been formed.

The traveling libraries were sent around the state, as usual. The Society's small collection of bird-skins has been very popular in the schools, as the teachers find it helpful to illustrate the bird talks, especially in places where there is no public museum. This useful collection of specimens was a gift to the Society from the Academy of Natural Sciences of Philadelphia.

One much-needed piece of work accomplished during the past year was the publication, in one leaflet, of all the complex bird-protection laws of the state.

This leaflet emphasizes the fact that it is "illegal for any one to shoot Robins or other non-game birds, even on his own premises," and that "all non-game birds" (with a short list of exceptions) "may not be sold as millinery, or for any other purpose."

Perhaps it would not be out of place in this report to give a short account of the Spencer F. Baird Ornithological Club, started in Philadelphia some ten years ago, and, by doing so, answer the question the Audubon Society is constantly asked: "How can a bird club assist the Audubon Society, and at the same time be an entirely independent organization?" This club was started by the first Secretary of the Audubon Society, Mrs. Edward Robins, as an entirely separate club, but the individual members later became Audubon members also; it meets four times each year.

The first meeting, which is held in November, is devoted chiefly to reporting summer observations. At the January meeting, the subject is always some widely distributed bird or family of birds, each member being expected to study up on the particular point allotted him. The March meeting is usually an illustrated lecture, and is a joint gathering of the club and the Audubon Society members. The last meeting in May is an outdoor one, which the club aims to hold at the height of the migration season. This bird-club programme is the result of a number of experiments, and it is hoped that, in giving it in this report, it may be of use to other societies who are forming clubs for bird study.—Elizabeth Wilson Fisher, *Secretary*.

Rhode Island.—The work of the Audubon Society of Rhode Island, this year, has been largely educational. A dozen demonstration bird-boxes have been prepared by the Education Committee, after the method used by museums, and circulated among the rural schools. Each box contains a group of birds in characteristic position, also a life-history set of some injurious insect destroyed by birds. These are much appreciated by the teachers in the Nature Study exercises.

The Education Committee has also arranged for illustrated bird lectures, two of which have been given at Roger Williams Museum, and three at the Providence Public Library; also, fifteen lectures have been given by directors of the Society in clubs and schools.

Interest has been revived in the use of leaflets with colored bird plates and a thousand have been distributed to the grammar schools of Providence. Through the interest of the teachers, the supervisor of drawing, Mr. Randall, was led to introduce bird-work into the drawing lessons of the sixth and seventh grades. Colored wall-charts have been given to those schools securing twenty-five new junior members.

The traveling libraries have aided in our educational work. Ten cases of books have been in constant use, two of which were reserved for city schools. A system of registration of the circulation of the books has been used, showing

that, for the entire library of 261 books, the circulation during the year has been 2,800.

Bi-monthly meetings of the directors have been held at Brown University, followed by open lectures for the Society and its friends. The following subjects have been presented: 'Habits of Some of Our Common Birds, and the Triumphs of Bird Protection,' by Herbert K. Job; 'Herons and Egrets,' by Robert C. Murphy; 'Bird Life along our Coast,' by Clinton G. Abbott. These different lines of educational work have aroused more than a passing interest in bird study and bird life. This is the best assurance of a larger and more efficient membership in the future.—Alice W. Wilcox, *Secretary*.

South Carolina.—At the annual meeting of the State Audubon Society, last November, Mr. B. F. Taylor, who had organized the Society, and to whom chief credit was due for success, was forced by pressure of business to give up the presidency. The Society saw him go with regret, and resolutions were passed, attesting appreciation of his valued service.

Mr. Mortimer O. Dantzler, a business man of wide connections in Orangeburg, and a man of force in the community, was elected Mr. Taylor's successor, and has discharged his delicate and embarrassing duties with satisfaction to all concerned. Secretary Rice and Treasurer Heyward were reëlected unanimously, and Mr. W. H. Gibbes, the present mayor of Columbia, was made Vice-president. Mr. Gibbes is a grandson of Dr. Robert W. Gibbes, who collaborated with Audubon and Bachman, and was an eminent bird-lover of his day.

The Society drafted bills for the General Assembly, for the purpose of making uniform the bird-protective laws, for protecting game fish, for a resident license, and for the creation of the office of Game Commissioner. A bag limit of twenty-five Partridges (Quail) and twenty-five Doves, twelve Woodcock and two Turkeys, was made law. Cold storage, except in private dwellings, was prohibited under heavy penalty. Buying, as well as selling, game and game-birds was forbidden. No protection was given to Ducks, and their shipment out of the state was allowed, as well as the shipment of Bobolinks, known locally as 'Rice-birds.' But the buying and selling of venison were prohibited, for the first time. Berkeley county was exempted from the provisions of the law, through the work of politicians. Game fish may be taken only with rod and line at all seasons, and sale is not permitted from March to November, unless the party offering them is prepared to prove that said fish were taken with rod and line. The office of Chief Game Warden was created, but the wording of the act prevented the officer from qualifying until the meeting of the Senate in January, 1911. The law puts the nomination in the hands of the Audubon Society, and Secretary Rice was appointed by the Governor on their recommendation.

The resident license did not fare so well. When the general assembly met,

Secretary Rice addressed them by invitation. He was greeted warmly, and closed amid enthusiasm, all the members present coming up and pledging support. The following day, committees from House and Senate, meeting in conference, gave unanimous report in favor of all of the bills offered. This appeared to settle the matter, but it did not, for, after being rejected in the Senate and then passed on reconsideration by a vote of three to one, the bill finally died in the House, there being five majority against it.

All power of enforcing law having been taken away from the Audubon Society by the act creating a Chief Game Warden, there ensued confusion. Upon consultation, it was determined to carry the fight before the people, a continuance of the campaign of the previous year.

Secretary Rice has been continuously on the road, lecturing on birds and explaining the resident hunters' license. In ninety days, he talked to one hundred and three audiences, taking a vote by calling for a display of hands, each time, and getting every vote at every meeting in favor of the license.

During the mid-summer months, the Secretary was appointed a lecturer on the staff of Clemson Agricultural College, to assist in farmers' institute work and in this way thousands of farmers were seen and talked to, always with the same result. A series of articles has been appearing throughout the year in daily and weekly papers, descriptive of birds, their habits and uses.

Most of the opponents of the game-bird laws were left at home at the last election, and in both houses of the coming Legislature there will be a large majority favoring bird protection and the passage of the hunters' license bill. Of the six candidates for governor only one opposed the hunters' license, and he failed to carry his own county. Both Governor-elect Blease and Lieutenant-Governor Smith are outspoken advocates of bird protection.

The Society feels encouraged at the prospect, although aware that vigilance and alertness are always necessary to make sure that the fruits of victory are not lost. Every energy will be concentrated on the resident hunters' license, this time.

Both the Snowy Egret rookery on James Island and the rookery of American Egrets on Santee were visited by plume hunters during the summer, and many birds killed. The criminals were not apprehended. Owing to the condition brought about by the action of the General Assembly, there have not been so many convictions as there were last year. But there have been a number, and the people are obeying the laws better than ever before.—James Henry Rice, Jr., *Secretary*.

Tennessee.—The East Tennessee Audubon Society was organized at Knoxville, Tennessee, on September 2, 1910. The following officers were elected: H. Tullsen, President; Judge H. Y. Hughes, First Vice-President; Mrs. J. E. Hood, Second Vice-President; Miss S. M. Ducloux, Treasurer; Miss

M. M. Woodward, Recording Secretary; Mrs. Charles O. Lutz, Secretary of Literature.

The Society is actively engaged in conducting a campaign of education as to the value of birds. Mrs. J. E. Hood and Miss M. M. Woodward have already each organized a Junior Society in the schools, under the plan of the National Association, made possible by the Sage Fund. Children are encouraged to join the East Tennessee Audubon Society also, as Junior members, and several now are members. The Society has purchased a large number of leaflets, which are being judiciously distributed by the Secretary of Literature and other officers and members.

It is purposed by the Society to purchase a stereopticon in the near future, also, for illustrating lectures. A meeting for the general public is to be held on December 2, at which the objects of the Audubon Societies will be fully explained. Regular meetings are held quarterly.

The need of bird protection is being dwelt upon in articles prepared by the President and others for the local newspapers. The state game warden has offered to aid the Society in every way possible, and hunters and gun clubs are having their attention directed to the game laws. One special object that the East Tennessee Audubon Society is working for is the protection of the Robin in the South.—H. Tullsen, *President.*

Texas.—The Texas Audubon Society began this, the sixth year of its existence, with the lecture at Dallas before the State Convention of Texas Mothers' Clubs, and secured the attention of the local branches of this powerful organization throughout the state. That lecture bore fruit, and echoes have been heard throughout the present year. Last winter, a continuous series of lectures were delivered, from October to January of the present year, before the Boys' Corn Clubs, Farmers' Institutes, and Teachers' Institutes. There was much travel in carrying out this portion of the campaign, most of which was done in automobiles and on the inter-urban lines. It involved much activity and devotion to the cause. The Secretary was generously assisted by many ladies and gentlemen, who did the work effectually and in most cases paid their own expenses. From January of the present year until April, the same class of work prevailed, and also continuous publications in the press, which resulted in the organization of thirty branch societies, from January until last April. April 5, of the present year, the Secretary of this Society, assisted by Prof. H. P. Attwater, of Houston, appeared before the Conservation Congress at Fort Worth, Texas, and, after delivering lectures, secured a strong endorsement by that influential body for the Audubon work, national and state. The following month was marked with activity in most parts of this state, and a great deal of correspondence arose between headquarters in Waco and the branch organizations. On May 26, of the present year, the Secretary appeared before a large audience in Turner Hall, Houston,

Texas, under the auspices of the Museum and Scientific Society of that city, and delivered an illustrated lecture, which was enthusiastically received. This lecture did a great deal of good, and the Secretary was elected an honorary member of the Society for life. Before leaving Houston, the Secretary appeared before the commercial and industrial organizations, and continued in the field, lecturing at many smaller cities in the state, and concluding the summer course with a series of lectures before the Texas Farmers' Congress, which meets annually at College Station. The chief address on this occasion was an illustrated one, delivered before the main body of the Farmers' Congress. The same had been done annually for five years, and the result has been that the farmers of Texas have become very greatly interested in bird protection, and have combined Audubon work with their institute work throughout the state. The Texas Audubon Society is now affiliated with the Texas Conservation Congress, the Texas Farmers' Congress, the Texas Cotton Growers' Association, and the Texas Corn Growers' Association. An Audubon lecture is permanently made a part of the program of the annual meetings of those important bodies. After the adjournment of the Farmers' Congress, traveling in an automobile, lectures were delivered at thirty of the smaller towns, and at no time during the year was correspondence neglected. The last important lecture before a large body occurred in Waco on September 30, before the Women's Christian Temperance Union of Texas. The work is in active progress now in the fruit districts, of which Tyler is the center, and it will be continued actively, winding up the year at the Dallas Fair and State Exposition, which brings together one hundred thousand citizens of Texas. The Texas Audubon Society feels a sense of having performed its duty, and will go forward with the work, intending to appear before the next legislature with a strong committee to secure increased revenues for warden service, and important amendments to the bird and game laws.—M. B. Davis, *Secretary.*

Virginia.—During the past year, seventy new members have been added to the Society; two bills for the protection of the Robin and the Dove were prepared and presented to the legislature. An exhibit was held again this year at the State Fair, and leaflets distributed.

By the appropriation from Mrs. Russell Sage's gift to the Audubon work, Miss Katharine H. Stuart of Alexandria was appointed Field Agent.

Meetings have been called, from time to time, to discuss plans for advancing the interests of the Society.—I. G. Fitzpatrick, *Recording Secretary.*

Wisconsin.—The Wisconsin Audubon Society has added to its roll a number of regular, annual and sustaining members. At the beginning of the year, Mr. Frederick C. Brandenburg succeeded Mr. Thomas R. Moyle as editor of the Society's official magazine, 'By the Wayside,' and the place of publi-

cation was changed to Madison. Mr. Brandenburg has extended the circulation and the sphere of usefulness of the magazine in several states. Many of the most interesting of the articles appearing during the year were contributed by himself. At the Society's request, he also conducted the spring bird classes at Madison, these being as largely attended by both children and adults as in previous years.

The bird leaflets were again distributed to state libraries through the courtesy of the Wisconsin Library School. A large amount of other bird literature was distributed to school teachers and others through the Society's office. The lantern-slide lectures have been much in use. Material for use in bird lectures and talks was furnished to school-teachers and to women's clubs, as requested.

In the early part of the year, the Society requested and secured promises of the support of the Wisconsin congressmen for the H. R. (Weeks) Bill No. 10,276, providing for the custody and protection of the migratory birds of the United States. The Wisconsin Academy of Sciences, and other scientific organizations in the state, were also induced to adopt resolutions strongly favoring the passage of this measure.

Numerous newspaper notices and articles calling attention to the necessity of bird protection and of the work of the Audubon Societies, were written by the Secretary during the year. These had good effect. During the severe snow-storms of the winter and spring, the providing of food for the storm-bound birds was strongly urged.

Largely through the activity and interest of Mr. A. C. Burrill, who assumed personal charge of the crusade, Governor James O. Davidson was induced to appoint Mr. A. C. Katzemiller, of that city, the special custodian of a large colony of Bank Swallows existing in the Lake Michigan shore bank at Bay View, within the city limits of Milwaukee. The coöperation of the city in protecting this colony was also secured. In this state, these interesting birds are to be found nesting in large colonies chiefly along the shore of Lake Michigan and the Mississippi river, and also on some of the larger lakes and streams inland. They suffer much from the depredations of small boys, and from the occasional caving of the banks. For several years, the creation of a state Bank Swallow reserve has been strongly urged, by Mr. Burrill, who has given these useful birds especial attention.

About the Madison Lakes, the Great Blue Herons have this year been more numerous than for some years past. Their welfare has been zealously guarded by several local Audubon members and their friends. During the year, the cause of the birds has enlisted a number of additional friends in Wisconsin. To Mrs. W. A. Tower the Society is much indebted for creating an interest in bird study and protection at Galesville. The editor of the Madison Democrat has been a staunch supporter of the Audubon movement. Prof. E. A. Clearans delivered an illustrated lecture on birds, and their value

to humanity, to the students of the State Normal School at Oshkosh. Prof. B. E. McCormick gave a similar address to the school-teachers of Watertown. Mr. Burrill continued his lectures to the school-children of Milwaukee. Mr. G. A. Raeth published in the July issue of the 'Outers' Book' an article entitled, 'Boys as Bird Protectors,' which was widespread in its good effects. To Dr. Victor Kutchin of Green Lake and Mrs. George W. Peckham the cause is also indebted for services rendered.

There are indications that another attempt will be made by gunners to set aside the present state law against the spring shooting of game-birds. This means that the members of the Wisconsin Audubon Society, and all other friends of the birds in this commonwealth, must make preparations for the defeat of any destructive and vicious measures of this nature which may be introduced at the coming session of the new state legislature.—Charles E. Brown, *Secretary.*

Washington.—I beg leave to report for the State Audubon Society that the past year has been one that will long be remembered. Through the influences of our Society, we have accomplished the prohibition of the sale of unlawful millinery stock in the cities of Seattle, Tacoma, Everett, Bellingham, Olympia, Wenatchee and Spokane. I am informed that there are a few small towns in the state that are still disregarding this law, but I believe that the Society will be able to stamp out the illicit traffic. The Game Warden's Office has seized, during the past year, a great many thousand birds that were shipped in here from the Orient. In each case, the parties having possession of same were prosecuted.

At the last meeting of the Board of Directors, a plan was outlined, and committees were appointed to work with the school-teachers to have them educate the children of the public schools to the value of bird life, and also to prepare to give lectures in different localities. In this, I trust, the officers will be successful, and will accomplish the good that is intended.

The membership of our Society is increasing, and the public in general recognizes the State Audubon Society as a power.—H. Rief, *Vice-President.*

LIST OF MEMBERS OF THE NATIONAL ASSOCIATION OF AUDUBON SOCIETIES

BENEFACTOR

*Albert Wilcox 1906

FOUNDER

Mrs. Russell Sage 1910

PATRON

William P. Wharton 1909

LIFE MEMBERS

Bowman, Miss Sarah R. 1905
Brewster, William 1905
Browning, J. Hull 1905
Childs, John Lewis 1905
Clyde, W. P. 1905
Crosby, Maunsell S. 1905
Earle, Carlos Y. Poitevent 1905
Earle, Eleanor Poitevent 1905
Fay, Mrs. Flora Ward 1905
*Frothingham, Howard P. 1905
Hemenway, Mrs. Augustus 1905
Hunnewell, H. S. 1905
Huntington, Archer M. 1905
Kidder, Nathaniel T. 1905
Lawrence, Samuel C. 1905
North Carolina Audubon Society 1905
Pearson, T. Gilbert 1905
Phillips, Mrs. J. C. 1905
Phillips, John C. 1905
Pierrepont, Anna J. 1905
Pierrepont, John J. 1905
Potts, Thomas, ... 1905
Reed, Mrs. Wm. Howell 1905
Sage, Mrs. Russell 1905
Van Name, Willard G. 1905
Vaux, George, Jr. 1905
Webster, F. G. 1905
Bancroft, William P. 1906
Brooks, A. L. 1906
Brooks, Mrs. Shepard 1906
Eastman, George 1906
Marshall, Louis 1906
Morton, Miss Mary 1906
Osborn, Mrs. Eliza W. 1906
*Palmer, William J. 1906
Pinchot, Mrs. J. W. 1906
Satterlee, Mrs. Herbert L. 1906
Shattuck, Mrs. F. C. 1906
Beebe, Mrs. J. Arthur 1907
Bingham, Miss Harriet 1907
Bridge, Mrs. Lidian 1907
Brooks, Mrs. Everett W. 1907
Brooks, S. 1907
Carr, Julian S. 1907
Coolidge, T. Jefferson, 3rd. 1907
Foote, James D. 1907
Havemeyer, Mrs. H. O., Jr. 1907
Hoffman, Samuel V. 1907
Hostetter, D. Herbert 1907
Kilmer, Willis Sharpe 1907
Pickman, Mrs. Dudley L. 1907
Tufts, Leonard 1907
Barnes, Miss Cora F. 1908
Chapman, Clarence E. 1908
Crozer, Mrs. J. Lewis 1908
Edgar, Daniel 1908
Emmons, Mrs. R. W., 2rd 1908
Endicott, H. B. 1908
Gallatin, F. Jr., ... 1908
Gazzam, Mrs. Antoinette E. 1908
Gifford, Mrs. Robert L. 1908
Jackson, Mrs. James J. 1908
McConnell, Mrs. S. D. 1908
McGraw, Mrs. Thos. S. 1908
Mackey, Clarence H. 1908
Parker, A. H. 1908
Phillips, Eleanor H. 1908
Reynolds, R. J. 1908
Saltonstall, John L. 1908
Stokes, Miss Caroline P. 1908
Taylor, Chas H. Jr., ... 1908
Thompson, Mrs. Frederick F. 1908
*Ward, Marcus L. 1908
Woodward, Mrs. George 1908
Bolling, Mrs. Raynal C. 1909
Campbell, Helen Gordon 1909
Farwell, John V. 1909
Hearst, Mrs. P. A. 1909
Lane, Benjamin C. 1909
Moore, Clarence B 1909
Murphy, Franklin 1909
Parker, Edward L. 1909
Peck, Mrs. Walter L. 1909
Poland, James P. 1909
Prime, Miss Cornelia 1909
Sherman, Miss Althea R. 1909
Thayer, Mrs. Ezra R. 1909
Thayer, John E. 1909

*Deceased

Weekes, Henry de Forest	1909	Batten, George	1910
White, Mrs. Chas. T.	1909	Forbush, Edward Howe.	1910
Williams, John D.	1909	Grant, W. W.	1910
Abbott, Clinton G.	1910	Meyer, Miss Heloise	1910
Bates, Isaac C.	1910		

* Deceased.

ANNUAL MEMBERS AND CONTRIBUTORS FOR 1910

Abbott, Mrs. L. L.	$5 00	Brought forw'd.	$272 50	Brought forw'd.	$639 20
Abrahams, Miss E. R.	5 00	Barnes, Herbet S.	5 00	Bond-Foote, Miss M. E.	5 00
Achelis, Fritz.	5 00	Barnes, J. S., Jr.	5 00	Bonner, Mrs. P. R.	5 00
Achilles, Mrs. G. S.	10 00	Barnum, W. M.	5 00	Borden, Miss E. L.	5 00
Acklen, Col. J. H.	5 00	Barnum, Mrs. W.M.	5 00	Borden, Mrs. E. L.	5 00
Adams, H. W.	5 00	Barrett, Wm. H.	5 00	Borden, L. M.	5 00
Agassiz, R. L.	5 00	Barron, Geo. D.	5 00	Borg, Sidney C.	10 00
Agawam Men's Club	10 00	Barrows, Mrs. F. K.	5 00	Borland, Wm. G.	5 00
Aiken, John A.	5 00	Barrows, Mrs. M.	5 70	Bowdish, B. S.	5 00
Allen, Chas. A.	5 00	Bartlett, Mrs C. T.	5 00	Bowditch, Miss C.	5 00
Allen, C. L.	5 00	Bartol, E. H.	5 00	Bowditch, James H.	5 00
Allen County Audubon Society	2 50	"B. Cash"	100 00	Bowman, Miss S. R.	25 00
Allen, Miss M. C.	5 00	Beach, Mrs. H. H.A.	5 00	Boyle, Ed. J.	5 00
Almon, Miss M. E.	5 00	Beal, Mrs. J. H.	5 00	Bradford, Mrs. G.G.	5 00
Almon, Mrs.	5 00	Beckwith, Mrs. D.	5 00	Bradley, Miss A. A.	5 00
Alms, Miss E. C.	5 00	Beech, Mrs. Herbert	5 00	Bradley, A. C.	5 00
Amend, B. G.	10 00	Beer, Mrs. Geo.	5 00	Bradley, Miss L.	5 00
Ames, Miss Mary S.	5 00	Behr, Ed. A.	5 00	Bradley, Peter B.	5 00
Ames, Mrs. W. H.	5 00	Bell, Mrs. G.	5 00	Bragdon, J. W.	5 00
Anderson, Mrs. J. C.	5 00	Benedict, Theo. H.	5 00	Brandreth, C.	5 00
Andrews, Mrs. H. E	5 00	Benet, Miss Lilian	10 00	Brazier, Mrs. J. H.	5 00
Anthony, Mrs. S. R.	5 00	Benkard, H. H.	5 00	Brennecke, Geo.	5 00
Archbold, John D.	5 00	Benn, Miss A. E.	5 00	Brewer, A. R.	5 00
Arnin, Miss A. von.	5 00	Benn, Geo. W.	5 00	Bridge, Edmund.	5 00
Atkins, Mrs E. F.	5 00	Bent, Arthur C.	5 00	Briggs, Mrs. A. F.	5 00
Atwater, Chas. B.	5 00	Bertschmann, J.	5 00	Brimley, H. H.	5 00
Auchinclos, J. W.	5 00	Bevin, L. A.	5 00	Bristol, J. L. D.	5 00
Austin, Francis B.	5 00	Bickmore, Prof. A.S.	5 00	Brooks, Allan.	5 00
Avery, Samuel P.	5 00	Bigelow, Mrs. P.	5 00	Brooks, Mrs. A. S.	5 00
Ayres, Harry M.	5 00	Bigelow, Dr. Wm.S.	5 00	Brooks, F. M.	5 00
Ayres, Miss M. A.	5 00	Bill, Nathan D.	5 00	Brooks, Miss M. H.	5 00
Bacon, Mrs. F. E.	10 00	Billings, Miss E.	5 00	Brooks, Mrs. P. C.	5 00
Bacon, Miss M. P.	5 00	Billings, Mrs F.	5 00	Brown, Chas. E.	5 00
Badger, Arthur C.	5 00	Binney, Edwin.	5 00	Brown, David S.	5 00
Bahr, Dr. P. H.	5 00	Bird, Anna C.	10 00	Brown. Mrs. E. C.	5 00
Baird, Miss Lucy	5 00	Bird, Charles C.	5 00	Brown, Elisha R.	5 00
Baird, Spencer. (In memoriam)	10 00	Bishop, Dr. L. B.	10 00	Brown, Frank A.	5 00
Baker, Geo. L.	5 00	Black, Robert C.	5 00	Brown, Harry W.	5 00
Baker, L. D. Jr,	5 00	Blades, J. B.	5 00	Brown, Dr. L.	5 00
Balcom, H. Tracy	5 00	Blair, C. L.	5 00	Brown, Ronald K.	5 00
Ball, Miss H. A.	5 00	Blair, Mrs. D. C.	5 00	Brown, Mrs. W. H.	5 00
Balph, Mrs. J. M.	5 00	Bliss, Mrs. W. P.	5 00	Browning, Wm. H.	5 00
Bangs, Dr. L. B.	5 00	Bliss, Mrs. Wm. H.	5 00	Bruen, Frank.	5 00
Banks, Miss M. B.	5 00	Blue, Mrs. C. E.	5 00	Bryan, Wm. A.	5 00
Banning, Mrs. W.C.	5 00	Blunt, Miss E. S.	5 00	Bucknall, R. B.	5 00
Barbey, H. G.	5 00	Boardman, Miss E.D.	5 00	Buckingham, H.	3 00
Barhydt, Miss C.	5 00	Boardman, Miss S.	1 00	Buffington, Mrs.E.D.	2 00
Barhydt, Mrs. P. H.	5 00	Boeker, Leopold.	5 00	Bulkley, Mrs. E. M.	5 00
Barnard, Job	5 00	Bogert, Prof. M. T.	5 00	Bumpus, Dr. H. C.	5 00
Barnes, Mrs. H. S.	5 00	Bolles, Miss D. F.	5 00	Bunn, C. W.	5 00
		Bolles, Mrs. R. R.	5 00	Burgess, John K.	5 00
		Bolling, R. C.	5 00	Burke, J. F.	5 00
		Bolling. Stanhope	5 00		
Carried forw'd.	$272 50	Carried forw'd.	$639 20	Carried forw'd.	$914 20

ANNUAL MEMBERS AND CONTRIBUTORS, continued

Brought forw'd	$914 20
Burnham, Mrs. Geo. Jr.	5 00
Burnham, Mrs. L. T.	5 00
Burnham, William	5 00
Burr, I. Tucker	5 00
Burr, Mrs. I. T.	5 00
Burt, Henry P.	5 00
Bush, Mrs. E. F. (In memoriam)	5 00
Bush, Mrs. F. D.	5 00
Butler, Miss E. O.	5 00
Butler, Mrs. Paul	10 00
Butler, Miss V.	10 00
Bye, Miss C. F.	6 00
Cabaniss, Winship	5 00
"Friend"	5 00
Cabot Club of Middleboro	5 00
Cabot, Geo. E.	5 00
Cabot, Mrs. H. B.	5 00
Cabot, Louis	5 00
Cabot, Mrs. W. C.	5 00
Caduc, E. E.	5 00
Cady, Wm. H.	5 00
Callaway, W. T.	5 00
Campbell, Miss H.G.	50 00
Cameron, E. S.	5 00
Campbell, Mrs. T.B.	5 00
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Peck, Mrs. E. P	5 00
Pell, Wm, H	5 00
Pennock, C. J	5 00
Perkins, Miss E. G.	5 00
Perkins, Russell	5 00
Peters, Francis A	5 00
Philipp, P. B	5 00
Phillips, Mrs.C. E. H.	5 00
Phillips, Hon. J. M.	5 00
Phipps, Henry	5 00
Pickman, Mrs. D. L.	50 00
Pierce, H. C	5 00
Pierce, K. C	5 00
Pilsbury, F. O	5 00
Pillsbury, A. N., Jr.	5 00
Pitkin, F. E	5 00
Planten, J. R	5 00
Platt, Laura N	5 00
Poe, Margaretta	5 00
Pollock, Geo. E	5 00
Pond, C. H	5 00
Pope, Alexander	5 00
Porter, Alex S., Jr.	5 00
Post, Abner	5 00
Post, Wm. S	5 00
Potter, Miss C	5 00
Potter, Julian K	5 00
Potts, Jesse W	5 00
Potts, Miss Sarah B.	5 00
Powell, Mrs. L. G.	5 00
Pratt, Geo. D	5 00
Pratt, Miss S. E	5 00
Price. Mrs. Geo	5 00
Prosser, Mrs. R	5 00
Prouty, C. N	5 00
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Purinton, C. S	5 00
Putman. A. S	5 00
Putnam, F. W	5 00
Carried forw'd, $5,430	60

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Reading, Wm. V	5 00
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Renwick, Ed. S	5 00
Renwick, Ilka H	5 00
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Reynolds, Dorrance	5 00
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Rhoads, J. S	5 00
Rhoads, Mrs. S. W.	5 00
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Richmond, W	5 00
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Ricketts, Miss Jean	5 00
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Roberts, Samuel	5 00
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Rogers, Geo. J	5 00
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Roper, Rev. Y. C.	5 00
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Rothermel, J. J	5 00
Rowley, John	5 00
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Rushmore, Mrs. T. L.	5 00
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Ryman, J. J	5 00
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Brought forw'd,	$5,727 60
St. John, Ed. P	5 00
Sabine, Geo. K	5 00
Sage, Mrs. Deane	5 00
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Sanborn, Mrs. C. F.	5 00
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Saunders, Miss M	5 00
Saunders, W. E	5 00
Sauter, Fred	5 00
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Sayre, Rockwell & Co.,	5 00
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Schroeder, Arthur	5 00
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Schwab, Rev. L. H.	5 00
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Scrymser, Mrs. J. A.	25 00
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Seaman, L. W	5 00
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Sears, Geo. O	5 00
Sears, Mrs. S. C	5 00
Sears, Wm. R	5 00
Seaver, Benj. F	5 00
Seccomb, Mrs. E. A.	10 00
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Seitz, C	5 00
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Seligman, Mrs. I. N.	5 00
Seton, E. T	5 00
Sewall, Helen D	5 00
Seward, Geo. F	5 00
Shannon, Wm. P	5 00
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Shattuck, Miss G	5 00
Shaw, Mrs. G. H	5 00
Shaw, F	5 00
Shaw, Q. A. Jr	5 00
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Carried forw'd,	$6,202 60

Brought forw'd,	$6,202 60
Slade, F. L	5 00
Sloan, Earl S	4 00
Slocum, Wm. H	5 00
Smith, Mrs. A. J.	5 00
Smith, Miss A. W. (In memoriam)	5 00
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Thayer, Mrs. J. B.. 5 00
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Thayer, J. E., Jr. .. 5 00
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Thomas, Mrs. L.... 5 00
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Weeks, W. B. P.... 5 00
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White, Mrs. W. C... 5 00
Whiting, Miss G.... 5 00

Carried forw'd, $7,706 60

Brought forw'd,$7,706 60
Whitney, Miss Anne 5 00
Whitney, M. B..... 5 00
Whiting, P. W..... 5 00
Whiton, S. G..... 5 00
Whittaker, W..... 5 00
Wickes, F. R..... 5 00
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Williams, Mrs. I. T. 5 00
Williams, M. T..... 5 00
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Wilson, Miss A. E.. 5 00
Wilson, Miss A. M.. 5 00
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Wing, Asa S..... 5 00
Winsor, Miss M. P.. 5 00
Witherbe, Mrs. F. B. 5 00
Winterbotham, J.... 5 00
Wolfe, Mrs. John... 2 00
Wolff, Mrs. L. S.... 5 00
Woodcock, John.... 5 00
Woodward, L. F.... 5 00
Woolman, Ed. W.... 5 00
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Worcester, Mrs. A.. 5 00
Wray, Chas. P..... 5 00
Wright, Crosby M.. 5 00
Wright, Glenn..... 5 00
Wright, Miss H. H.. 5 00
Wright, H. W..... 5 00
Winturn, F. W..... 5 00
Wright, Mrs. M. O.. 5 00
Wyatt, W. S..... 5 00
Young, Benj. L..... 5 00
Young, Wm. H..... 5 00
Zabriskie, Mrs. A... 5 00
Zollikoffer, Mrs. O.F. 5 00

Total.....$8,262 60

The Report of the Treasurer of the National Association of Audubon Societies

BALANCE SHEET

Exhibit "A" — October 20, 1910

Assets		
Cash in Bank and Office		$8,033 22
Loan Account, LaRue Holmes Nature Lovers' League		55 00
Furniture and Fixtures		331 30
Bird Island Purchase, Orange Lake, Fla.		28 20
Audubon Boats (five)		3,210 46
Investments, Endowment Fund—		
United States Mortgage and Trust Company Bonds guaranteed	$3,000 00	
Bonds and Mortgages on Manhattan Real Estate	323,900 00	
Manhattan Beach Securities Company Bonds guaranteed	2,000 00	
		328,900 00
Investments, Mary Dutcher Memorial Fund—		
Bonds and Mortgages on Manhattan Real Estate		7,100 00
Deficit—Amount existing at October 20, 1909	$8,640 00	
Deduct—Balance from Income Account, Exhibit "B"	859 45	
		7,780 55
Total		$355,438 73
Liabilities		
Endowment Fund—		
Balance, October 20, 1909	$341,852 00	
Received from Life Members, etc.	1,893 91	
		$343,745 91
Mary Dutcher Memorial Fund		7,100 00
Bradley Fund—		
Total contributed	$1,900 40	
Less amount invested, taxes, repairs, etc.	1,704 15	
		196 25
Special Funds (Exhibit "C")		
Mrs. Russell Sage Fund	$3,342 85	
Massachusetts Legislative Campaign	357 22	
Reservation Purchase Fund	125 00	
Willow Island Fund	6 50	
Robin Fund	565 00	
		4,396 57
Total		$355,438 73

INCOME AND EXPENSE ACCOUNT FOR YEAR ENDING OCTOBER 20, 1910

Exhibit "B"

Income—		
Members' Dues	$5,700 00	
Contributions	2,573 60	
Interest from Investments	16,327 78	
Educational Leaflets—Sales	538 98	
Von Berlepsch Book—Sales	47 03	
Sales of Slides	95 23	
		$25,282 62

INCOME AND EXPENSE ACCOUNT FOR YEAR ENDING OCTOBER 20, 1910. continued

INCOME, brought forward			$25,282 62
EXPENSES—			
Warden Service and Reservations—			
Salaries	1,533 00		
Launch Expenses	111 93		
Reservation Expenses	84 03		
		$1,728 96	
Legislation—			
Traveling	$391 17		
Expenses	23 58		
New York Aigrette Amendment	286 04		
Big Game Protection	105 85		
		806 64	
Educational Effort—			
T. G. Pearson's salary and expenses	$3,686 89		
E. H. Forbush, salary and expenses	1,851 29		
M. B. Davis, salary and expenses	300 00		
W. L. Finley, salary and expenses	1,186 33		
Curran & Mead, Press Information	1,800 00		
Plates and Outlines	1,252 64		
Slides and Drawings	722 95		
Electros and half-tones	466 10		
BIRD-LORE to Members	1,089 76		
Extra pages BIRD-LORE	460 30		
Printing of Reports, Circulars, Notices, etc.	698 50		
Newspaper Clippings	60 00		
Educational Leaflets	629 71		
Von Berlepsch Books	23 18		
Lecture and Stereopticon Work	25 00		
Traveling	391 18		
		14,643 83	
Southern Office—			
Expenses		40 77	
State Audubon Societies—			
New Jersey	$100 41		
Virginia	31 10		
Ohio	5 00		
California	188 00		
Michigan	100 00		
Arizona	15 00		
		439 51	
General Expenses—			
Salary, Chief Clerk	$1,165 00		
Salary, Cashier and Bookkeeper	729 00		
Salary, two stenographers	1,096 00		
Salary, Junior Clerk	290 17		
Postage	668 74		
Telegraph and Telephone	157 50		
Office and storeroom rent	900 00		
	$5,006 41		
Expenses carried forward		$17,659 71	$25,282 62

INCOME AND EXPENSE ACCOUNT FOR THE YEAR ENDING OCTOBER 20, 1910 continued

INCOME, brought forward		$17,659 71	$25,282 62
EXPENSES, brought forward	$5,006 41		
Stenographic work	97 55		
Legal services	766 03		
Envelopes and supplies	198 23		
Express and cartage	82 58		
Commissions	37 50		
Miscellaneous	575 16		
Total expenses		6,763 46	$24,423 17
Balance—Surplus, per Exhibit "A"			$859 45

STATEMENT OF SPECIAL FUNDS ACCOUNTS, OCTOBER 20, 1910

Mrs. Russell Sage Fund—			
Amount contributed		$5,000 00	
Disbursements—			
Warden Service and expenses	$288 62		
Legislation	250 00		
T. G. Pearson, expenses	359 27		
Plates and Outlines	259 50		
BIRD-LORE	2 25		
Salaries and expenses	280 65		
Drawings	25 00		
Printing	183 75		
Incidental expenses	8 11		
Balance unexpended		1,657 15	$3,342 85
Massachusetts Legislative Campaign Fund—			
Balance on hand October 20, 1909	$500 00		
Amount contributed this year	775 00		
Total		$1,275 00	
Disbursements—			
E. H. Forbush, expenses	$470 93		
J. A. Lowell, expenses	200 00		
J. A. Keith, expenses	229 35		
C. A. Draper	17 50		
Balance unexpended		917 78	357 22
Reservation Purchase Fund—			
Balance on hand October 20, 1909			125 00
Robin Fund—			
Amount contributed this year			565 00
Willow Island Fund—			
Balance on hand October 20, 1909			6 50
Total unexpended on Special Funds (Exhibit "A")			$4,396 57

LAWRENCE K. GIMSON, CERTIFIED PUBLIC ACCOUNTANT,
82 Wall Street

NEW YORK, October 24, 1910

DOCTORS J. A. ALLEN AND H. C. BUMPUS,
Audit Committee,
National Association of Audubon Societies,
141 Broadway, New York City.

Dear Sirs:—In accordance with your instructions, I have made an examination of the books and accounts of the National Association of Audubon Societies, for the year ending October 20, 1910, and present herewith, the following exhibits:

EXHIBIT "A"—BALANCE SHEET, October 20, 1910.
EXHIBIT "B"—INCOME AND EXPENSE ACCOUNT FOR YEAR ENDED OCTOBER 20, 1910.
EXHIBIT "C"—SPECIAL FUNDS ACCOUNTS October 20, 1910.

All disbursements have been verified with properly approved receipted vouchers and paid checks; all investment securities, with Safe Deposit Company, have also been examined and found in order. Yours very truly,

LAWRENCE K. GIMSON,
Certified Public Accountant.

WILLIAM DUTCHER, President,
141 Broadway, New York City.

Dear Sir:—We have examined the report submitted by Lawrence K. Gimson, Certified Public Accountant, of the accounts of the National Association of Audubon Societies, for the year ending October 20, 1910, which account shows balance sheet of October 20, 1910, and income and expense account for the year ending the same day.

Vouchers and paid checks have been examined in connection with disbursements, and also securities in the Safe Deposit Company.

We find the account correct. Very truly yours,

J. A. ALLEN,
H. C. BUMPUS,
Auditing Committee.

Officers and Directors of the National Association of Audubon Societies for the Year 1910

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President, William Dutcher of New York.
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Second Vice-President, Dr. Joel A. Allen, of New York.
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TENTH CHRISTMAS BIRD CENSUS

VOL. XII
No. 1

JANUARY—FEBRUARY, 1910

20c. a Copy
$1 a Year

Bird-Lore

EDITED BY
FRANK M. CHAPMAN

PUBLISHED FOR THE AUDUBON SOCIETIES
BY

D. Appleton & Company

HARRISBURG, PA. NEW YORK

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R. Weber

Bird-Lore

January - February, 1910

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*** Manuscripts intended for publication, books, etc., for review and exchanges, should be sent to the Editor, at the American Museum of Natural History, 77th Street and 8th Avenue, New York City, N. Y.*

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Special Notice

WE take the liberty of sending this number of BIRD-LORE to subscribers whose subscriptions expired December 1, 1909, in the belief that the matter of renewal has been overlooked.

On renewal, a copy of the Remarkable Bird Plate, mentioned in the December number, will be forwarded.

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VOL. XII
No. 2

MARCH—APRIL, 1910

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Bird-Lore

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FRANK M. CHAPMAN

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Bird-Lore

March - April, 1910

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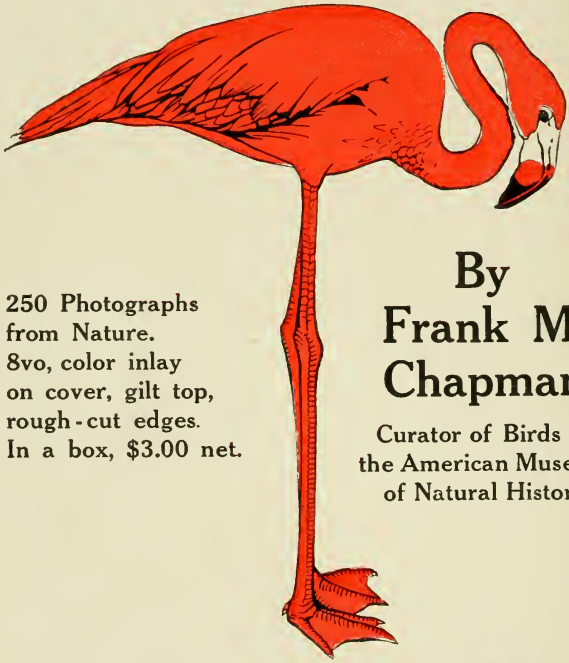

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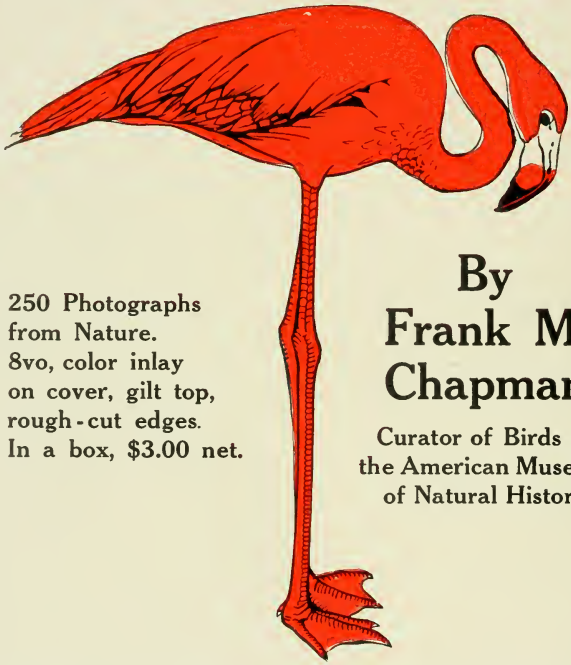

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